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London County Council

ANNUAL REPORT OF THE COUNCIL, 1933

Vol. III (Part I)

PUBLIC HEALTH

(Report for the year 1933 of the County Medical Officer of Health)

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ANNUAL REPORT OF THE COUNCIL, 1933

VOL. III—(Part I)

REPORT OF THE COUNTY MEDICAL OFFICER FOR THE YEAR 1933.

By Sir FREDERICK MENZIES, K.B.E., M.D., LL.D., F.R.C.P., F.R.S.E., County Medical Officer of Health and School Medical Officer.

VITAL STATISTICS.

Population

The population enumerated in London by the census on the night of 26th April, 1931, was 4,397,003, including 10,500 non-civilians. In this census the place of usual residence was also recorded, so that two population figures are available, the enumerated population already stated, and the normal resident population, which was 4,419,877.

The Registrar-General estimates the resident population of the county in the middle of 1933 to have been 4,298,600. The corresponding estimates for metropolitan boroughs are shown in the table on page 22, and the rates given in this Annual Report are calculated upon these figures.

Marriages.

The marriages registered in London during 1933 numbered approximately 40,703 or 18·9 per thousand of the population, the corrected rate for the preceding year being 18·1.

Births.

The births in London during 1933 numbered 56,743, compared with 62,233 in the preceding year. The birth-rate was 13·2 per thousand as against 14·3 in 1932. This is the lowest birth-rate recorded in London, the number of births being 14,233 less even than in 1918, when the influence of the European War was at its height.

Deaths.

The deaths in the total population of London during 1933 numbered 53,536, giving a death-rate of 12·5 per thousand, compared with 12·3 in 1932.

The distribution of deaths by ages in 1933 and recent preceding periods is shown in the following table :—

Period.	0–	1–	2–	5–	10–	15–	20–	25–	35–	45–	55–	65+	All ages.
1919-22 (Annual average.)	7,836	2,131	1,919	1,376	853	1,175	1,318	3,103	4,238	6,414	8,265	19,828	58,456
1923-26 (Annual average.)	5,546	1,611	1,453	828	637	1,013	1,220	2,479	3,659	6,080	8,456	21,004	53,986
1927-30 (Annual average.)	4,585	1,396	1,152	818	490	1,009	1,245	2,414	3,444	6,195	9,200	23,788	55,736
1929 ...	4,995	1,642	1,217	842	502	1,047	1,272	2,528	3,765	6,907	10,491	27,681	62,889
1930 ...	4,109	1,205	963	779	447	956	1,237	2,347	3,015	5,571	8,529	21,834	50,992
1931 ...	4,270	862	721	622	463	953	1,248	2,353	3,052	5,795	9,047	24,902	54,288
1932 ...	4,143	1,084	960	641	453	847	1,195	2,291	2,897	5,429	8,793	24,878	53,611
1933 ...	3,377	680	728	698	518	728	1,193	2,468	3,008	5,832	9,110	25,196	53,536

It will be seen that the number of deaths in 1933 was about the same as in 1932. Owing to a considerable prevalence of epidemic influenza during the winter,

the deaths from this cause in 1933 were 1,012 above those in 1932; on the other hand there was no epidemic of measles and the deaths from this cause were fewer by 721 than in the previous year. No conspicuous departure from the normal is observed in other predominant causes of death.

The decrease in the number of deaths from street accidents recorded in the two preceding reports was not maintained; during 1933 the deaths numbered 763 in the 52 registration weeks, as against 683 last year and 731 in 1931.

The death-rates from all causes and from certain specified causes in each metropolitan borough in 1933 and in London as a whole in 1933 and earlier years will be found in the tables on pages 22 and 24.

Infant mortality.

The deaths under one year of age per thousand births were 60 as compared with 67 in the preceding year.

The infant mortality rate for 1933 calculated on the provisional figures of births and deaths in London during the registration year of fifty-two weeks was 54 per thousand, and this was the lowest rate ever shown by these figures, the previous lowest being 56 in 1930. It was, therefore, confidently expected that, when the finally corrected figures for 1933 became available, they also would show a record low rate, but the effect of correction was to increase the rate by as much as 6 per 1,000, the result being a corrected rate of 60, as compared with the corresponding rate of 59 for 1930. Calculated to decimal places, the rate for 1930 was 59·17 and for 1933 59·51, so that the margin by which the record remains with the year 1930 is very small.

Cause of death.	1911 to 1914.	1915 to 1918.	1919 to 1922.	1923 to 1926.	1927 to 1930.	1929.	1930.	1931.	1932.	1933.
Measles	3·40	3·84	1·64	2·02	2·07	0·61	3·12	0·44	2·44	0·28
Whooping-cough ...	3·63	4·45	2·50	2·60	3·14	6·15	0·89	2·15	2·59	2·45
Influenza	0·27	1·10	0·81	0·38	0·48	0·96	0·26	0·46	0·39	0·46
Tuberculosis	3·40	3·20	1·52	1·26	0·89	0·77	0·79	0·70	0·96	0·83
Bronchitis	6·41	6·72	4·42	2·91	2·30	2·87	1·66	2·56	2·09	1·50
Pneumonia	12·28	14·96	12·60	11·51	12·10	14·15	9·85	13·90	10·25	8·27
Diarrhœa	24·28	16·10	12·16	9·36	8·87	9·93	9·07	8·94	11·78	10·70
Premature birth ...	18·16	17·42	17·00	14·74	14·17	14·81	13·71	15·24	14·51	15·23
Congenital defects ...	14·69	14·66	11·26	8·39	7·38	7·65	7·11	6·65	7·58	6·84
All causes	**108**	**103**	**79**	**65**	**64**	**71**	**59**	**65**	**67**	**60**

The average infant mortality for the four years 1930-33, namely 63 per 1,000 births, is less by about 42 per cent. than that for the period 1911-14. Among the causes of death shown in the table the most remarkable decrease is that from tuberculosis, the mortality in 1930-33 from this cause being *less than one-fourth* of that in 1911-14.

In the following table the birth-rates per 1,000 of population, the fertility-rates (legitimate births per 100 married women aged 15-45 years), the percentage of illegitimate births and the infant mortality rates for the county of London and each metropolitan borough are shown for the three-year periods 1921-23 and 1930-32, the percentage increase or decrease in the rates being also shown.

The decrease in the fertility-rates shows some variation in the different boroughs, but having regard to the divergent conditions of life the percentage decrease is generally remarkably constant.

To the general marked decrease in the infant mortality there are some exceptions which are difficult to account for. In the case of Paddington the rate has considerably increased; one of the factors in this exception to the general movement may perhaps be found in the increase in illegitimacy, and the social conditions which this connotes. It will be noticed that the illegitimacy rate is excessive in all boroughs which show an increase in infant mortality.

Metropolitan boroughs—Birth-rate, Fertility, Illegitimacy and Infant Mortality, 1921-23 *and* 1930-32.

Metropolitan boroughs in topographical order.	Birth-rate per 1,000 living.			Legitimate births per 100 married women aged 15-45.			Illegitimate births per 100 total births.			Infant Mortality.		
	1921-23	1930-32	Increase (+) Decrease (−) per cent.	1921-23	1930-32	Increase (+) Decrease (−) per cent.	1921-23	1930-32	Increase (+) Decrease (−) per cent.	1921-23	1930-32	Increase (+) Decrease (−) per cent.
Western—												
Paddington ...	18·9	14·6	−22·8	14·3	10·7	−25·2	8·0	11·6	+45·0	76	91	+19·7
Kensington ...	18·1	13·9	−23·2	15·4	11·7	−24·0	6·7	8·7	+29·9	87	81	− 6·9
Hammersmith ...	20·6	15·3	−25·7	15·7	11·1	−29·3	5·1	7·3	+43·1	74	66	−10·8
Fulham ...	20·7	15·0	−27·5	15·0	11·0	−26·7	4·7	6·4	+36·2	72	61	−15·3
Chelsea	16·6	12·7	−23·5	15·0	11·7	−22·0	6·9	9·4	+36·2	67	45	−32·8
W'minster, City of	13·1	10·1	−22·9	11·3	8·5	−24·8	10·3	12·9	+25·2	61	67	+ 9·8
Northern—												
St. Marylebone...	16·2	11·7	−27·8	13·2	9·9	−25·0	10·0	12·2	+22·0	70	72	+ 2·9
Hampstead ...	14·8	11·2	−24·3	12·7	9·3	−26·8	6·2	9·4	+51·6	55	58	+ 5·5
St. Pancras ...	21·5	15·0	−30·2	16·2	11·5	−29·0	5·6	8·5	+51·8	71	66	− 7·0
Islington ...	22·5	16·8	−25·3	17·1	12·5	−26·9	3·7	4·7	+27·0	75	67	−10·7
Stoke Newington	18·8	14·9	−20·7	14·9	11·1	−25·5	3·3	4·1	+24·2	56	54	− 3·6
Hackney ...	21·0	15·4	−26·7	16·6	11·7	−29·5	2·6	3·9	+50·0	66	55	−16·7
Central—												
Holborn ...	14·8	10·3	−30·4	12·0	7·9	−34·2	8·7	13·5	+55·2	76	78	+ 2·6
Finsbury ...	25·1	17·1	−31·9	20·8	14·5	−30·3	3·5	5·4	+54·3	78	73	− 6·4
*City of London	9·6	7·2	−25·0	9·3	6·6	−29·0	7·4	7·8	+ 5·4	83	57	−31·3
Eastern—												
Shoreditch ...	28·1	18·2	−35·2	22·8	15·6	−31·6	3·5	3·7	+ 5·7	98	73	−25·5
Bethnal Green ...	25·0	16·7	−33·2	20·5	14·2	−30·7	2·3	2·9	+26·1	87	72	−17·2
Stepney... ...	24·0	17·4	−27·5	20·2	15·6	−22·8	2·4	3·0	+25·0	78	71	− 9·0
Poplar	26·6	18·0	−32·3	21·8	15·1	−30·7	2·1	2·3	+ 9·5	74	65	−12·2
Southern—												
Southwark ...	25·3	16·7	−34·0	19·6	13·5	−31·1	4·0	4·2	+ 5·0	79	63	−20·3
Bermondsey ...	26·5	17·4	−34·3	21·8	14·9	−31·7	1·9	2·1	+10·5	89	59	−33·7
Lambeth ...	21·0	15·4	−26·7	15·8	11·4	−27·8	4·9	6·4	+30·6	70	58	−17·1
Battersea ...	21·4	15·6	−27·1	16·4	12·1	−26·2	3·5	4·1	+17·1	64	57	−10·9
Wandsworth ...	17·2	12·5	−27·3	13·6	9·8	−27·9	4·0	5·1	+27·5	60	60	—
Camberwell ...	21·9	14·8	−32·4	17·2	11·8	−31·4	2·8	3·2	+14·3	69	58	−15·9
Deptford ...	22·6	16·1	−28·8	17·1	12·3	−28·1	2·5	3·3	+32·0	73	60	−17·8
Greenwich ...	21·6	15·2	−29·6	17·3	12·2	−29·5	3·0	3·1	+ 3·3	65	65	—
Lewisham ...	18·9	13·8	−27·0	14·7	10·1	−31·3	3·4	3·2	− 5·9	52	49	− 5·8
Woolwich ...	21·2	14·5	−31·6	15·7	10·8	−31·2	2·9	3·0	+ 3·4	56	54	− 3·6
London ...	**21·1**	**15·0**	**−28·9**	**16·7**	**11·9**	**−28·7**	**4·1**	**5·3**	**+29·3**	**72**	**64**	**−11·1**

*Based on very small numbers.

London life-tables.

Although the county of London has long ceased, from an actuarial point of view, to be a suitable unit for the calculation of a life-table, owing to the large proportion of the population which has moved to adjacent areas, a life-table is nevertheless of value for statistical purposes as it affords a convenient and reliable means of comparing the principal vital statistics of the county at different periods of time. For such purposes the short method of life-table construction gives sufficiently accurate figures, and by the method devised by Dr. E. C. Snow life-tables have been calculated for the London population for successive decennial periods from 1841-50 to 1901-10, the main features of which are set out in the Annual Report for 1923 (Volume III, pages 10-14).

Owing to war conditions it is not practicable to calculate the life-table for the decennial period 1911-20, but in order to provide an approximate figure for this period, apart from the war, the mean of the values given by life-tables constructed for the years 1911-12 and 1920-22 has been adopted.

The death-rates for 1921-30 in the age-groups used for calculating the life-table are shown in the following table, which also shows for the purposes of comparison the corresponding death-rates for the period 1841-50 :—

Age-group.	Death-rates per 1,000 living at each age.				Decrease per cent. in rate, 1841-50 to 1921-30.	
	1921-30.		1841-50.			
	Males.	Females.	Males.	Females.	Males.	Females.
0— 5	26·6	21·7	88·0	77·0	69·8	71·8
5—10	2·6	2·4	11·4	10·8	77·2	77·9
10—15	1·7	1·6	5·0	4·9	65·3	67·1
15—20	2·7	2·4	6·8	5·8	61·0	58·3
20—25	3·3	2·7	8·9	6·9	63·0	61·4
25—35	3·7	3·1	11·0	9·7	66·7	67·4
35—45	7·1	4·7	17·7	14·1	59·7	66·5
45—55	13·9	8·9	26·8	20·5	48·0	56·4
55—65	28·0	18·6	47·0	37·7	40·4	50·7
65—75	61·4	43·5	92·0	77·2	33·2	43·7
75—85	137·2	109·6	187·5	166·2	26·8	34·1
85+	281·4	245·9	330·6	312·8	14·9	21·4

It will be seen from the last two columns of the table that the decrease in death-rates since 1841 for both sexes diminishes towards the higher ages and that it is generally greater among females than among males; but it will be observed that between the ages of 15 and 25 years the advantage is with the males; in regard to this fact reference may be made to the Annual Report for 1931 (Vol. III, Part I, pp. 12-15), where it is shown that the relative increase in the mortality from pulmonary tuberculosis among young women is the principal factor contributing to this result.

The expectation of life, at birth, for the decennial period 1921-30 is found to be for males 56·1 years and for females 61·2 years. The following table enables comparison to be made between these figures and those for earlier periods for which it has been possible to calculate the expectation:—

Period.	Expectation of life at birth.		Excess of expectation of females over males.
	Males.	Females.	
	years.	years.	years.
1841-50	34·6	38·3	3·7
1851-60	36·4	40·4	4·0
1861-70	35·7	39·9	4·2
1871-80	38·0	42·4	4·4
1881-90	40·1	44·5	4·4
1891-00	41·2	45·4	4·2
1901-10	47·2	51·9	4·7
1911-20 (estimated)	*51·7*	*56·8*	*5·1*
1921-30	56·1	61·2	5·1

The figures show that there has been an increase in the expectation among males amounting to 21·5 years and among females to 22·9 years between 1841-50 and 1921-30.

The increased difference in the expectation of life among males as compared with females in the later periods is specially interesting in view of the considerable changes which have taken place, particularly in regard to employment; that these changes were already influencing the expectation before the war is shown by the fact that the relative increase in expectation among females is apparent in the figures for the period 1901-10.

Infectious Diseases.

The notifications, attack-rates and death-rates of the principal infectious diseases in London in 1933 and earlier years are shown in the tables on pages 22 to 25, and for the constituent metropolitan boroughs in 1933 in the table on page 22.

Three cases of anthrax were notified during the year, one in the borough of Lewisham and two in the borough of Southwark. **Anthrax.**

The case in Lewisham was a male aged 43, who was employed as a general labourer in the London docks, where he handled dry cow hides from Indo-China which were being re-shipped to Quebec. The source of infection was attributed to these hides. The site of the disease was the face. The patient was admitted to Lewisham hospital and made a satisfactory recovery.

The first case in Southwark was a woman aged 29, who was employed in brush making and handled imported hogs' bristles. The source of infection was, however, not established. The site of the disease was the left arm. The patient was admitted to Guy's hospital, and made a satisfactory recovery.

The source of infection of the other case in Southwark, a male aged 48 years, was attributed to horse hair handled in the course of employment. The site of the disease was the forehead. The patient was removed to Guy's hospital. He also made a complete recovery. The horse hair was part of a consignment imported from China in 1931 and distributed to various dealers. The remaining stock of hair held by the man's employers was bacteriologically examined by the medical officer of health of Deptford, was found to contain anthrax bacilli and was destroyed. Owing to the lapse of time between the importation of the hair and the occurrence of the case of anthrax it was impossible to trace the other dealers to whom the consignment was distributed.

The number of notifications of smallpox was 531 compared with 1,131 in 1932. The following table shows the incidence of the disease in the years 1932 and 1933 in the separate London boroughs :— **Smallpox.**

Metropolitan Borough.	*Number of notifications.*		*Metropolitan Borough.*	*Number of notifications.*	
West—	*1932*	*1933*	*East—*	*1932*	*1933*
Paddington	2	1	Shoreditch	14	29
Kensington	1	—	Bethnal Green	25	11
Hammersmith...	—	—	Stepney	26	23
Fulham	2	—	Poplar	177	141
Chelsea	—	—			
Westminster	4	1			
North—					
St. Marylebone	—	—	*South—*		
Hampstead	1	1	Southwark	161	63
St. Pancras	5	—	Bermondsey	16	21
Islington	162	11	Lambeth	218	127
Stoke Newington	1	—	Battersea	16	4
Hackney	34	13	Wandsworth	12	1
			Camberwell	66	55
Central—			Deptford	56	—
Holborn	1	1	Greenwich	17	—
Finsbury	105	5	Lewisham	2	21
City of London	—	—	Woolwich	7	2
			Total ...	1,131	531

One death occurred, particulars of which are as follows :—

Borough.	Age.	Sex.	Vaccinal condition.	Date of death.	Certified cause of death.
Poplar ...	2	M.	Unvaccinated	21.3.33	I (*a*) Acute miliary tuberculosis. II Smallpox.

The practice of treating mild cases of smallpox at home, if the borough medical officers of health consider that the home conditions justify this course, has continued. During the year 25 notified cases of smallpox were treated in their homes.

Information regarding the action taken by the school medical service in collaboration with the borough health services, in connection with the control of smallpox in the Council's schools, appears in Vol. III, Part II, of this report.

During the year three ships on which smallpox had occurred during their voyages arrived in the port of London from Bombay.

In the first case the patient boarded the ship at Bombay. At Aden a fellow passenger who shared a cabin with the patient informed the ship's surgeon that the patient had been so ill for three days before embarking that he was only just well enough to board the ship, and that he had some spots on him. The ship's surgeon diagnosed variola and isolated the patient and the contact who were both landed at Suez. The whole of the European crew (221) were vaccinated, except those who could show evidence of successful vaccination within the previous two years. The native crew (243) had all been vaccinated within the year. The passengers were offered vaccination and, of those who landed in London, 219 availed themselves of the offer and 152 declined. The majority of the latter had been vaccinated within the previous five years.

In the second instance a native passenger was found on disembarkation at Aden to have a few spots on his face and body. The case, which was diagnosed provisionally as chickenpox, was removed to hospital at Aden. On arrival of the vessel off Suez, the port health officer informed the ship's surgeon that the case landed at Aden had been diagnosed as smallpox. All the crew, European and native, had been vaccinated within the year. Four passengers were vaccinated by the ship's surgeon at their request.

The case on the third vessel also occurred amongst the passengers. The patient was not feeling well at the time of embarkation and reported to the ship's surgeon that he had a "chill on the liver." He later developed a hæmorrhagic rash on his trunk, arms and legs, and was removed to hospital at Aden where the ship's surgeon took on board sufficient vaccine to vaccinate all on board. The ship later received a message from Aden that the case was smallpox and that the patient had died. The surgeon then vaccinated all the crew and as many passengers as would submit (257).

On arrival of these vessels in the port of London all precautionary measures were taken by the port medical officer, including disinfection of the ship, bedding, etc., and the notification to the medical officers of health concerned of the names and addresses of passengers and crew.

No secondary cases occurred.

Passengers from four other ships on which smallpox had occurred arrived in London. The names and addresses of these contacts were forwarded to the medical officers of health concerned in order that the contacts might be kept under surveillance during the incubation periods.

Chickenpox.

In the City of London and the borough of Poplar, orders, made under the provisions of Section 55 of the Public Health (London) Act, 1891, making chickenpox notifiable, were extended for a period of one year. At the end of the year this disease was notifiable in Paddington, Hammersmith, Chelsea, Islington, City of London, Poplar, Deptford and the port of London.

Cerebro-spinal (spotted) fever.

During the year 216 notifications of cerebrospinal fever were received, but in 13 of these the diagnosis was not confirmed. Of the 203 cases confirmed, 90 proved fatal. In addition 24 deaths were recorded by the Registrar-General of cases which had not been notified and 2 of cases which were notified in 1932, thus making a total of 116 deaths.

Encephalitis lethargica.

The notifications of acute encephalitis lethargica numbered 22. In 4 of these the diagnosis was not confirmed ; of the 18 actual cases, 8 proved fatal. In addition 31 deaths were recorded by the Registrar-General of cases which had not been notified, and 8 which had been notified in previous years, making a total of 47 deaths for the year.

Particulars of cases admitted to the post-encephalitis lethargica unit at the Council's Northern hospital are given in Vol. IV, Part I, of this report.

Instances of patients suffering from the after effects of encephalitis lethargica who had not been notified during the acute stage continue to come to light by reason of the need for hospital treatment.

All cases of post-encephalitis lethargica are "followed up" for medical reports over a number of years through the school medical service or through the co-operation of the borough medical officers of health; 173 cases were on the "live" register at the end of the year.

Poliomyelitis and polio-encephalitis.

Notifications of poliomyelitis and polioencephalitis numbered 66; the diagnosis was not confirmed in 6 of these. Of the 60 actual cases, 5 proved fatal. In addition, 7 deaths were recorded by the Registrar-General of cases which had not been notified, making a total of 12 deaths. Particulars of acute cases admitted to the Council's Western hospital and of cases admitted, when convalescent, to the Council's Queen Mary's hospital for children, Carshalton, for treatment of crippling effects of the acute stage, are given in Vol. IV, Part I, of this Report.

Serum treatment of acute anterior poliomyelitis

The arrangements for the collection, preparation and distribution of convalescent poliomyelitis serum, briefly referred to in my last Annual Report, have been carried out during the intervening period. The poliomyelitis committee, composed of representatives of the Ministry of Health, Medical Research Council, Lister Institute and the public health department of the Council, has met on several occasions to consider reports on progress and to discuss plans for extending the scope of the investigation.

The chief sources of supply of convalescent blood have been the Royal National Orthopaedic hospital, London, the Wingfield-Morris Orthopaedic hospital, Oxford, the Robert Jones and Agnes Hunt Orthopaedic hospital, Oswestry, St. Vincent's Orthopaedic hospital, Pinner, and Queen Mary's hospital, Carshalton, but several of the London voluntary hospitals have contributed small amounts to the common pool. After collection, the blood is immediately dispatched to the Lister laboratories at Elstree where the serum is pooled and prepared ready for use. Each batch is tested experimentally for viricidal potency at the Lister institute, Chelsea, and is required to attain a given standard before issue.

Small stocks of immune serum in cartons each containing 100 cc. have been distributed to certain London hospitals for emergency use but the main supply has been deposited at the Western fever hospital, Fulham, where early or suspected cases of poliomyelitis are admitted for observation and treatment, and whence supplies of serum are issued to hospitals, public health authorities and practitioners for use in appropriate cases. Since the investigation was commenced in December, 1932, serum has been distributed on request to various centres in England and Wales and in Scotland; at no time has the stock of serum been completely exhausted although on several occasions it fell to a low level. The co-operation of practitioners in returning unused ampoules as early as possible, and in advising the Medical Research Council of poliomyelitis convalescents willing to give blood, greatly assists in maintaining adequate stocks of serum.

While the number of patients treated with serum so far has been too small to warrant any conclusion regarding its efficacy, it is hoped, during the next seasonal prevalence of poliomyelitis, to extend the investigation, provided that sufficient material is available for clinical trial.

The following statement shows the numbers of notifications in recent years, of the diseases specified, excluding duplicate notifications and military cases :—

Year.	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933
Cerebro-spinal fever ...	65	93	93	83	93	70	121	88	175	247	216
Encephalitis lethargica ...	98	600	293	224	142	100	92	60	40	47	22
Poliomyelitis and polioencephalitis	111	116	55	95	86	54	66	37	56	89	66

Food poisoning.

During the year particulars of 419 cases of food poisoning, notified under the provisions of the London County Council (General Powers) Act, 1932, were received, compared with 466 during the period July-December, 1932. Four cases proved fatal. In one case (a female aged 61 years), however, in which food poisoning was stated to have been contracted through eating tinned salmon, a post-mortem examination and an inquest were held and a verdict of death from disease of the coronary artery was returned. One case (a male aged 56 years), who was admitted to the Council's St. George-in-the-East hospital, died on the 13th October. A post-mortem examination was carried out and a verdict that death was due to toxaemia from food poisoning by jellied eels (bacillus aertryck) was returned at the inquest.

Two deaths occurred in an outbreak of food poisoning in October. The outbreak was associated with the consumption of pease pudding prepared and sold at a shop in St. Pancras.

As far as could be ascertained it produced 13 cases of illness. Six cases (aged 11-16 years) were admitted to Highgate hospital, two of whom died the same day. A further case was admitted to University College hospital, and, although the child was for a long time on the danger list, he ultimately recovered. An inquest was held on the two fatal cases and was adjourned pending further investigations.

Specimens from four cases and post-mortem material from the two fatal cases were examined at the group laboratory at Archway hospital, and in each case the Sonné bacillus was isolated. The University College hospital also attributed the cause of illness to this organism in the case of the patient admitted to that hospital. This type of dysentery bacillus is fairly commonly found in children suffering from diarrhœa, but in these cases the strain was apparently of a virulent form.

The unsold portion of the pease pudding was examined by Dr. Teale of University College hospital and was found to contain Sonné bacillus.

Samples of the peas were examined in the Council's laboratories and by the Ministry of Health, and it was proved that the peas themselves were not responsible for the poisoning.

At one time there was some doubt whether, in the process of cooking, the temperature of the pudding would reach a point sufficient to destroy all micro-organisms. Experiments were conducted by the Ministry of Health and it was definitely proved that the temperature in the middle of the pudding was well above the lethal temperature for the Sonné bacillus.

As a result of investigations carried out by Dr. Sowden, medical officer of health of St. Pancras, a link was traced in a child who was proved to have come into contact with the pudding after it was prepared; this child was found to be a "carrier" of the Sonné bacillus. At the resumed inquest, a verdict was returned that death was due to dysentery contracted in all probability from contact with a carrier case, found on examination of his stools, to be harbouring the Sonné bacillus.

In some instances several members of a family were affected by illness suspected to be food poisoning, but in most of the cases notified the suspected food had been eaten by all the family, and, as only one person suffered, it appeared that the illness was not true food poisoning.

The following statement shows the age and sex incidence of the notified cases :—

Age.	0–	5–	15–	25–	35–	45–	55–	65–	Total.
Male ...	15	34	39	45	22	26	18	6	205
Female ...	6	29	45	45	34	24	17	8	208

In six cases (1 male, 5 female) the ages were not stated.

The causes of illness in the 419 notified cases were stated to be as follows :—

Fish	118	Fruit	16
Tinned fish and paste ...	46	Tinned fruit	7
Meat	136	Miscellaneous...	88
Tinned meat	8		

Measles.

The deaths from measles in 1933 numbered 101 compared with 822 in 1932. The death-rate was 0·02 per thousand. Measles again became epidemic towards the end of 1933.

The death-rates in London and England and Wales in recent years have been as follows :—

Area.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931	1932.
London ...	0·34	0·08	0·29	0·07	0·20	0·04	0·30	0·05	0·23	0·03	0·19
England and Wales	0·15	0·14	0·12	0·14	0·09	0·09	0·11	0·09	0·11	0·08	0·08

Whooping-cough.

There were 329 deaths from whooping-cough in London during 1933 compared with 348 in 1932. The death-rate was 0·08 per thousand.

The death-rates in London and England and Wales in recent years are shown in the following table :—

Area.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
London ...	0·25	0·09	0·11	0·19	0·05	0·12	0·09	0·26	0·03	0·07	0·08
England and Wales	0·17	0·11	0·10	0·16	0·11	0·09	0·08	0·16	0·05	0·06	0·07

Scarlet fever.

There were 21,911 notifications of scarlet fever in 1933 (52 weeks), the corresponding figure for 1932 being 14,119. The attack-rate was 5·1 per thousand as against 3·3 in 1932. The deaths numbered 84, giving a death-rate of 0·02 per thousand of the population at all ages and a case-mortality of 0·4 per cent.

The notifications during 1933 were in excess of those received in any year since 1921 when they numbered 32,708. As in previous scarlet fever epidemic years, the excessive incidence is associated with marked deficiency in the rainfall.

The seasonal incidence, as shown by the notifications (uncorrected for errors of diagnosis) received in successive four-weekly periods during the year, was as follows :—

1–	5–	9–	13–	17–	21–	25–	29–	33–	37–	41–	45–	49–52
1,089	1,106	1,315	1,294	1,261	1,461	1,734	1,586	1,322	2,161	2,814	2,638	2,130

The notifications (uncorrected for errors in diagnosis), deaths and crude case-mortality during 1933 were as follows :—

Year 1933.	Age-period.											Total.
	0–	1–	2–	3–	4–	5–	6–	7–	8–	9–	10–	15+	
Notifications (52 weeks)	145	734	1,340	1,864	2,013	2,458	2,036	1,689	1,436	1,192	4,105	2,899	21,911
Deaths (365 days) ...	4	8	9	11	3	10	8	3	3	2	8	15	84
Crude case-mortality percentage ...	2·76	1·09	0·67	0·59	0·15	0·41	0·39	0·18	0·21	0·17	0·19	0·54	0·38

The death-rates in London and England and Wales in recent years are shown in the following table :—

Area.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
London	0·07	0·03	0·03	0·02	0·02	0·01	0·02	0·02	0·03	0·02	0·02
England and Wales	0·04	0·03	0·02	0·03	0·02	0·01	0·01	0·02	0·02	0·01	0·01

Diphtheria.

Notifications of diphtheria numbered 9,557 in 1933 (52 weeks), compared with 8,087 in 1932. This gives an attack-rate of 2·2 per thousand as against 1·9 in the preceding year. There were 362 deaths, giving a death-rate of 0·08 per thousand living. The case-mortality was 3·8 per cent., compared with 3·9 per cent. in 1932.

The seasonal incidence, as shown by the notifications (uncorrected for errors of diagnosis) received in successive four-weekly periods during the year was as follows :—

1–	5–	9–	13–	17–	21–	25–	29–	33–	37–	41–	45–	49–52
585	540	635	587	668	648	692	620	659	901	1,073	1,015	934

The notifications (uncorrected for errors in diagnosis), deaths and crude case-mortality during 1933 were as follows :—

Year 1933.	Age-period.												Total.
	0–	1–	2–	3–	4–	5–	6–	7–	8–	9–	10–	15+	
Notifications (52 weeks)	157	393	650	840	934	1,025	859	701	557	445	1,493	1,503	9,557
Deaths (365 days)	12	27	31	44	49	48	41	32	20	19	31	8	362
Crude case-mortality percentage	7·64	6·87	4·77	5·24	5·25	4·68	4·77	4·56	3·59	4·27	2·08	0·53	3·79

The death-rates in London and England and Wales in recent years are shown in the following table :—

Area.	1922.	1923.	1924.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.
London	0·25	0·13	0·12	0·11	0·12	0·09	0·09	0·08	0·10	0·06	0·07
England and Wales	0·11	0·07	0·06	0·07	0·08	0·07	0·08	0·09	0·09	0·07	0·06

Diarrhœa and enteritis.

Diarrhœa and enteritis caused 666 deaths among children under two years of age or 11·74 per thousand births. The corresponding rate in 1932 was 12·55.

Puerperal fever and pyrexia. Maternal mortality.

There were 255 notifications of puerperal fever and 838 notifications of puerperal pyrexia in 1933 (52 weeks) compared with 218 and 741 respectively in 1932 (52 weeks).

The deaths from puerperal fever numbered 96 and from other accidents of childbirth 112, the deaths per 1,000 live-births being 1·69 and 1·97 respectively, giving a total maternal mortality rate of 3·66.

The deaths from puerperal fever and other accidents of childbirth per thousand births in each metropolitan borough and in the county of London in the periods 1920 to 1927 and 1928 to 1933, together with the deaths in childbirth in 1933, are shown in the following table :—

Metropolitan boroughs arranged in topographical order.	Childbirth deaths per 1,000 births.						Number of deaths in childbirth.		
	1920-27.			1928-33.			1933.		
	Puerperal fever.	Other causes.	Total.	Puerperal fever.	Other causes.	Total.	Puerperal fever.	Other causes.	Total.
Western.									
Paddington ...	1·5	1·8	3·3	1·8	2·1	3·9	4	6	10
Kensington ...	1·9	1·7	3·6	2·2	1·9	4·1	3	5	8
Hammersmith ...	2·1	1·7	3·8	2·0	1·6	3·6	6	2	8
Fulham	1·9	1·6	3·5	2·4	1·7	4·1	4	5	9
Chelsea	1·9	2·9	4·8	1·8	1·8	3·6	—	—	—
Westminster ...	1·5	2·9	4·4	2·9	3·2	6·1	1	3	4
Northern.									
St. Marylebone ...	2·1	2·6	4·7	2·3	2·9	5·2	3	5	8
Hampstead ...	1·8	1·6	3·4	1·4	2·2	3·6	—	—	—
St. Pancras ...	1·4	1·7	3·1	1·3	1·6	2·9	5	5	10
Islington	1·4	1·5	2·9	1·8	1·8	3·6	8	9	17
Stoke Newington...	2·5	1·9	4·4	1·8	4·0	5·8	—	6	6
Hackney	1·8	1·5	3·3	1·5	2·0	3·5	6	4	10
Central.									
Holborn	2·9	0·6	3·5	2·2	1·7	3·9	1	2	3
Finsbury	0·9	1·4	2·3	2·0	1·2	3·2	—	2	2
City of London ...	2·0	1·0	3·0	6·5	—	6·5	1	—	1
Eastern.									
Shoreditch ...	1·1	1·2	2·3	1·3	1·6	2·9	4	2	6
Bethnal Green ...	0·9	1·6	2·5	1·7	1·1	2·8	2	—	2
Stepney	1·0	1·4	2·4	1·0	1·5	2·5	3	8	11
Poplar	1·2	1·7	2·9	1·2	1·4	2·6	4	—	4
Southern.									
Southwark ...	1·3	1·4	2·7	1·7	1·4	3·1	3	3	6
Bermondsey ...	1·1	1·8	2·9	1·7	1·8	3·5	1	4	5
Lambeth	1·8	1·3	3·1	1·3	1·3	2·6	5	2	7
Battersea	0·9	1·9	2·8	1·3	1·7	3·0	4	1	5
Wandsworth ...	1·6	1·7	3·3	2·2	2·0	4·2	8	13	21
Camberwell ...	1·7	1·5	3·2	2·1	1·7	3·8	6	10	16
Deptford	1·6	1·7	3·3	2·2	1·3	3·5	6	3	9
Greenwich ...	1·0	1·4	2·4	1·7	1·9	3·6	3	4	7
Lewisham	1·1	1·9	3·0	1·8	1·5	3·3	3	4	7
Woolwich	1·2	1·6	2·8	2·1	2·2	4·3	2	4	6
London	**1·44**	**1·64**	**3·08**	**1·74**	**1·76**	**3·50**	**96**	**112**	**208**

The deaths in childbirth in 1933 are shown in the above table but not the death-rates, as, owing to the smallness of the figures, the rates for a single year may be misleading. The maternal mortality rates are, however, set out in the table on page 22.

It will be seen that the average annual deaths from childbirth per 1,000 live births for the six years 1928-33 is higher than for the eight years 1920-27. The increase in the puerperal fever death-rate is ·30 or 21 per cent., and in other causes ·12 or 7 per cent.

In view of the increased attention which has been directed to the problems of maternal mortality in recent years, this upward movement of the maternal death-rate will be regarded as very disappointing. There are, however, certain very important factors which have to be taken into account in considering these figures. In the Annual Report for 1928 (Vol. III, pp. 12-26), the then available statistics relating to maternal mortality were discussed and reasons were given for concluding that a falling birth-rate tends to be associated with an increase in the maternal death-rate (p. 13). The extent of the decrease in the fertility of married women is shown by the fact that in 1921-23 there were 16·7 births per 100 married women between 15 and 45 years of age, while by 1930-32 the proportion had fallen to 11·9 or by nearly 30 per cent.

In addition to the effect of the rapid fall in the birth-rate, the Annual Report referred to shows that there is also to be taken into account the fluctuation in the mortality from puerperal fever necessarily associated with its infective character. The deaths from puerperal fever form about 40 per cent. of the total deaths in child-birth. Taking the figures for England and Wales, in preference to those for London, in order to eliminate accidental fluctuations due to smallness of numbers, it is found that in the twenty-two years 1911-1932, the death-rate per 1,000 live-births from puerperal fever has varied from 1·26 to 1·92, a range of ·66, whereas the rate for all other deaths in child-birth varied from 2·43 to 2·74 or by ·31 only. The fluctuations in the puerperal fever rate is closely associated with the movement of the deaths from erysipelas. In fig. 1, the death-rate from erysipelas among women in England and Wales in the years 1919-1933 is contrasted with the puerperal fever mortality in this period. It will be seen that the erysipelas death-rate has increased considerably since 1924, and that concurrently there has been an increase in the puerperal fever rate. In the upper part of the diagram the curves for the two diseases are shown separately and in the lower section the annual fluctuations of the same figures are shown as a percentage of the average for the whole period. The latter gives a clearer picture of the relative movements of the two rates. The diagram is practically a continuation of that shown facing page 25 on the Annual Report for 1928 (Vol. III), for the period 1900-1927, with which it is in general agreement. It would seem, therefore, that the erysipelas deaths furnish a means of testing how far specific measures to reduce the puerperal fever mortality have met with success.

The downward course of the birth-rate tends to exaggerate the effect of certain factors in the method used to assess the maternal risk, and this to such an extent indeed that it becomes imperative to consider closely the validity of the basis of the present measure of maternal mortality.

The maternal mortality rate is arrived at by dividing the number of births registered into the number of deaths recorded as due to pregnancy and parturition : that is to say, deaths from miscarriage and abortion are included, but *not the total number of miscarriages and abortions among which they have occurred*. Statistically, therefore, the measure is unsound, because, while the births necessarily, in general, relate to pregnancies of more than 28 weeks gestation, the deaths include all deaths before the 28th week of pregnancy and consequently all abortions, *even of single women*, of which latter a far greater proportion are septic than of married women.

It appears from an examination of such records of maternal deaths in London for the years 1931-33 as are available that in two London boroughs 26 per cent. of the deaths due to puerperal fever and other accidents of childbirth occurred among single women. The same figures show that in London as a whole, 10 per cent. of the total maternal deaths occurred among single women. It is evident, therefore, that the published mortality figures cannot be relied upon for comparative purposes.

It accordingly appears to be desirable that the maternity and child welfare authorities should make use of the information which they obtain in the course of their administrative duties to differentiate between deaths due to live-births and still-births on the one hand, and deaths due to abortion or miscarriage on the other ; and, having done so, to state the maternal risk in the former class as representing the maternal risk of their administrative area as compared with others. It is, moreover, very desirable that the maternal mortality following still-birth should be separately stated, as the problems arising in this class of case are, in certain respects, different from those of live-births. In an appreciable proportion of maternal deaths associated with still-birth, there is some condition of the mother which either directly caused the still-birth or hindered the normal termination of pregnancy.

In the Council's general hospitals there were 11,385 births during 1932 ; of these 469 or 4·1 per cent. were still-births. The corresponding percentage for London, as a whole, for that year was 3·1 ; the higher proportion in the Council's hospitals probably indicates a tendency in practice to send to hospital cases where pre-natal death of the fœtus is suspected, or where the case is complicated by an

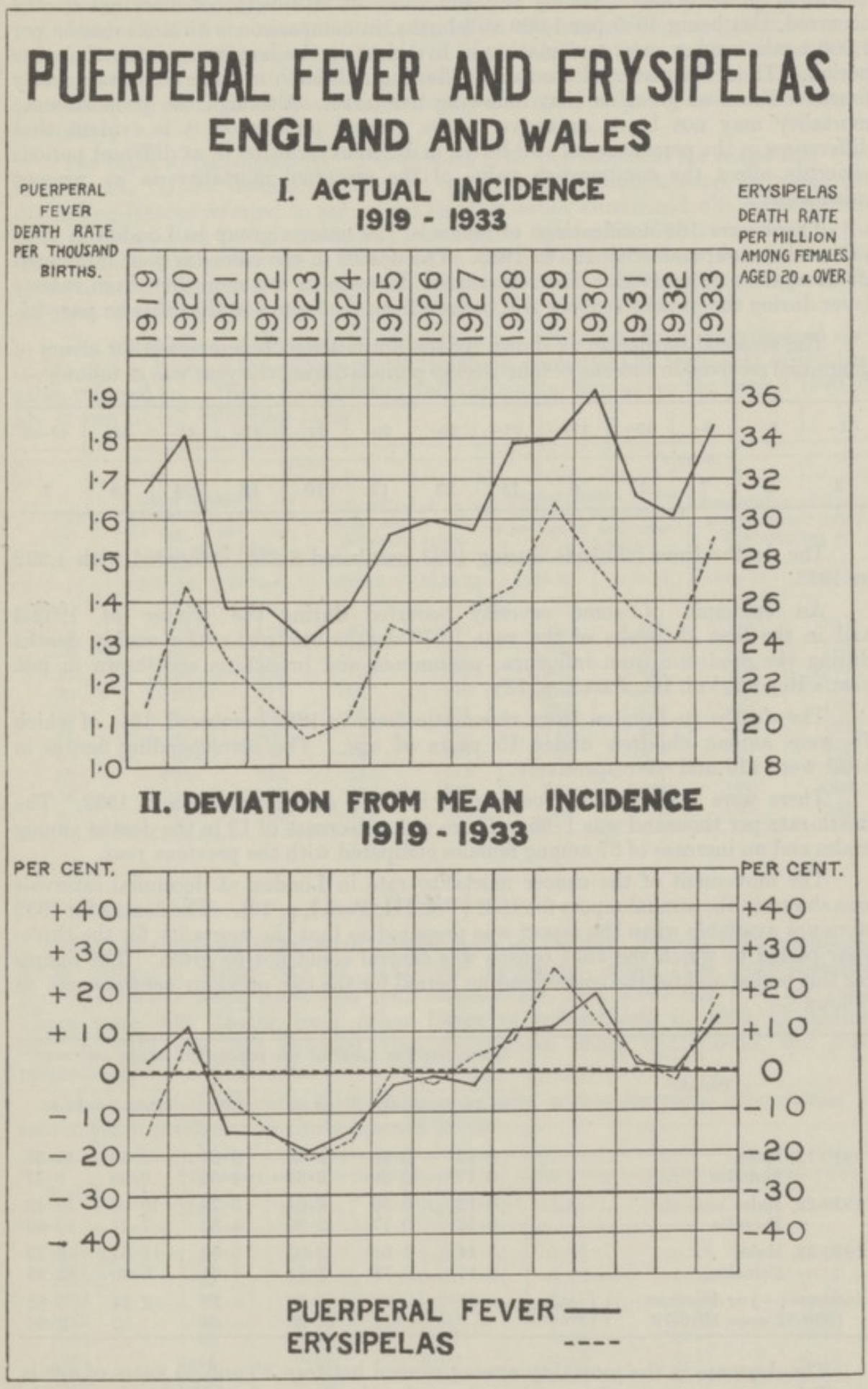

PUERPERAL FEVER AND ERYSIPELAS
ENGLAND AND WALES
I. ACTUAL INCIDENCE
1919 - 1933
PUERPERAL FEVER DEATH RATE PER THOUSAND BIRTHS.
ERYSIPELAS DEATH RATE PER MILLION AMONG FEMALES AGED 20 & OVER
1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933
1·9 1·8 1·7 1·6 1·5 1·4 1·3 1·2 1·1 1·0
36 34 32 30 28 26 24 22 20 18
II. DEVIATION FROM MEAN INCIDENCE
1919 - 1933
PER CENT.
PER CENT.
+40 +30 +20 +10 0 -10 -20 -30 -40
PUERPERAL FEVER ——
ERYSIPELAS ----

Fig. 1.

abnormal presentation. Among the 469 cases of still-birth, 19 maternal deaths occurred, this being 40·5 per 1,000 still-births, in comparison with 2·93 deaths per 1,000 births among cases terminating in live-birth in the hospitals during the same period. Thus, the maternal mortality following still-birth in these cases was nearly fourteen times as great as that following live-birth. Although the proportionate mortality may not be so excessive in the general population, it is evident that differences in the percentage of still-births in different localities or at different periods seriously affect the comparative value of the maternal mortality as at present calculated.

Enteric fevers.

There were 164 notifications of fevers of the enteric group in London in 1933 (52 weeks) compared with 195 in 1932. The deaths in the calendar year numbered 25 as against 20 in 1932. The remarkable decrease in the mortality from enteric fever during the present century will be seen from the figures in the table on page 24.

The seasonal incidence, as shown by the notifications (uncorrected for errors of diagnosis) received in successive four-weekly periods during the year was as follows :—

1–	5–	9–	13–	17–	21–	25–	29–	33–	37–	41–	45–	49–52
3	2	7	11	6	11	33	13	16	10	26	19	7

Influenza.

The deaths from influenza during 1933 numbered 2,234, compared with 1,222 in 1932.

An epidemic of some severity occurred during the winter of 1932-3 and in the first 12 weeks of the year 1,976 deaths occurred : the weekly deaths during the epidemic from influenza, pneumonia and bronchitis are shown in last year's Report (Vol. III, Part I, p. 12).

Rheumatic fever.

The deaths in London from rheumatic fever in 1933 numbered 151, of which 78 were among children under 15 years of age. The corresponding figures in 1932 were 110 and 47 respectively.

Cancer.

There were 7,093 deaths from cancer in 1933, as against 7,019 in 1932. The death-rate per thousand was 1·65. There was a decrease of 13 in the deaths among males and an increase of 87 among females compared with the previous year.

The movement of the cancer mortality rate in London at decennial intervals was shown in the annual report for 1931 (Vol. III, Part I, p. 10). The deaths for 1932 were not available when the report was prepared so that the mortality for the three-year period to which the 1931 census was central could not be given. The figures for this period and for the corresponding period for the two previous censuses are as follows :—

Period.	Death-rate per 1,000 of the population of age and sex indicated.					
	25-35.	35-45.	45-55.	55-65.	65-75.	75-85.
1910-12, Males	0·13	0·48	2·09	5·27	9·13	10·51
Females	0·17	0·89	2·34	4·62	6·98	9·37
1920-22, Males	0·12	0·50	2·01	5·70	10·05	12·49
Females	0·17	0·77	2·30	4·52	7·21	10·60
1930-32, Males	0·14	0·54	2·03	5·60	11·37	16·33
Females	0·17	0·78	2·11	4·04	7·50	12·25
Increase (+) or decrease(−) 1930-32 upon 1910-12 — Males	+·01	+·06	−·06	+·33	+2·24	+5·82
Females	—	−·11	−·23	−·58	+·52	+2·88

The decrease in the mortality among women between 35 and 65 years of age is, it will be seen, somewhat larger than shown by the figures for 1930-31 given in the Annual Report for 1931 above referred to.

Owing to the changes which have occurred in the birth-rate since the middle of last century and to the movement of population to outside the county boundary in the course of years, the age-distribution of the London population has become more and more abnormal, with the result that the cancer-rate calculated on the total population divided into total deaths does not accurately represent the cancer mortality.

The rates so calculated for 1930-32 were 1·67 per thousand for males and 1·53 for females. If the rates are calculated on the life-table population, in which the disturbing factors referred to are, so far as practicable, eliminated, the rates become 2·22 for males and 2·11 for females; the similar figures for 1920-22 worked on the life-table for that period are 1·93 for males and 1·97 for females. On the basis of these corrected figures the intercensal increase in the cancer rate for males, namely ·29, was twice as great as that among females, ·14.

The probability of dying from cancer has been calculated for the principal ages of life on the basis of the experience of the three years 1930-32 by means of the life-table referred to. These probabilities and the similar figures for the period 1920-22 are shown in the following table :—

Age (x)	Males.				Females.			
	Cancer deaths in the life-table population at age x and over (l_x = 10,000).		Probability of dying from cancer after attaining age x.		Cancer deaths in the life-table population at age x and over (l_x = 10,000).		Probability of dying from cancer after attaining age x.	
	1920-22.	1930-32.	1920-22.	1930-32.	1920-22.	1930-32.	1920-22.	1930-32.
0	1,203	1,427	·104	·130	1,310	1,449	·116	·134
5	1,200	1,425	·120	·142	1,308	1,446	·131	·145
15	1,198	1,422	·123	·145	1,307	1,444	·134	·147
25	1,193	1,417	·127	·149	1,304	1,440	·138	·150
35	1,182	1,404	·131	·152	1,288	1,424	·141	·153
45	1,139	1,356	·137	·157	1,219	1,353	·141	·152
55	983	1,190	·137	·157	1,028	1,172	·131	·142
65	623	813	·117	·142	702	864	·109	·125
75	211	309	·076	·102	321	431	·080	·096
85	17	32	·029	·049	55	75	·046	·052

Tuberculosis.

Tuberculosis.

The deaths from pulmonary tuberculosis in London during 1933 numbered 3,530, giving a death-rate of 0·82 per thousand living, the corresponding figures for 1932 being 3,564 and 0·82 respectively, and 3,907 and 0·88 for 1931. There were 466 deaths from other forms of tuberculosis in 1933 as against 522 in 1932 and 552 in 1931, the death-rates being 0·11, 0·12 and 0·13, respectively.

The annual death-rates from pulmonary and non-pulmonary tuberculosis in recent years are shown in the subjoined table :—

Period.	Pulmonary tuberculosis death-rates.			Non-pulmonary tuberculosis death-rates.		
	Males.	Females.	Total.	Males.	Females.	Total.
1922-24	1·28	0·78	1·01	0·22	0·17	0·19
1925-27	1·19	0·67	0·91	0·18	0·14	0·15
1928	1·14	0·68	0·89	0·17	0·12	0·14
1929	1·24	0·72	0·96	0·15	0·11	0·13
1930	1·13	0·64	0·87	0·13	0·11	0·12
1931	1·14	0·68	0·90	0·15	0·11	0·13
1932	1·08	0·59	0·82	0·14	0·11	0·12
1933	1·10	0·58	0·82	0·12	0·10	0·11

The number of primary notifications in metropolitan boroughs during the year 1933, after correction of figures within each metropolitan borough by the exclusion of cases notified as primary but subsequently found to have been previously notified, was 7,139, the corresponding figure for 1932 (52 weeks) being 7,474. The following is an analysis of the notifications in London during the year 1933.

Form of tuberculosis notified,	Sex.	Number of formal primary notifications of new cases of tuberculosis.												Total notifications.
		0–	1–	5–	10–	15–	20–	25–	35–	45–	55–	65 +	Total all ages	
Pulmonary tuberculosis	M.	2	13	55	45	268	479	782	580	637	425	120	3,406	4,822
	F.	5	26	36	71	353	534	729	353	201	129	54	2,491	3,473
Other forms of tuberculosis	M.	15	81	125	76	87	59	77	39	37	14	10	620	737
	F.	7	67	99	74	86	98	89	44	22	20	16	622	719
All forms of tuberculosis	M.	17	94	180	121	355	538	859	619	674	439	130	4,026	5,559
	F.	12	93	135	145	439	632	818	397	223	149	70	3,113	4,192

In addition to the primary cases shown in the above table, a number of cases came to the knowledge of medical officers of health, otherwise than by notification. These figures include cases not notified before death :—

Form of tuberculosis notified.	Sex.	New cases of tuberculosis coming to knowledge otherwise than by formal notification.											
		0–	1–	5–	10–	15–	20–	25–	35–	45–	55–	65 +	Total.
Pulmonary tuberculosis ...	M.	9	4	10	7	21	59	162	112	91	91	41	607
	F.	4	4	6	16	33	95	155	76	36	28	29	482
Other forms of tuberculosis	M.	10	25	32	24	17	16	19	17	7	11	3	181
	F.	6	35	28	22	14	20	22	11	10	4	4	176
All forms of tuberculosis...	M.	19	29	42	31	38	75	181	129	98	102	44	788
	F.	10	39	34	38	47	115	177	87	46	32	33	658

The sources of information as to the unnotified cases shown in the above table were as follows :—

Source of information.	Number of cases.	
	Pulmonary.	Non-pulmonary.
Death returns { from local registrars	221	77
Death returns { transferable deaths from Registrar-General ...	134	66
Posthumous notifications	65	38
"Transfers" from other areas	634	165
Other sources	35	11

The returns received under the Public Health (Tuberculosis) Regulations, 1930, from the medical officers of health of the metropolitan boroughs show that there were 27,363 cases of pulmonary tuberculosis (15,584 males and 11,779 females) and 10,144 cases of other forms of tuberculosis (5,205 males and 4,939 females) on the registers of the metropolitan boroughs at the end of 1933.

The following table has been prepared from quarterly returns supplied by the medical officers of health of the metropolitan boroughs as to the number of cases added to and removed from the registers in each borough during the registration

year, and the numbers remaining on the registers at the beginning and end of the period. As these figures relate to the registration year, the totals are not the same as those shown in the preceding tables.

Metropolitan boroughs in topographical order.	Cases on register at beginning of 1933.	Cases added to register during registration year. Brought to knowledge by		Cases removed from register during the registration year.		Cases on register at end of 1933.	
		Notification.	Otherwise.	Cured, removed, etc.	Deaths.	Total.	Per 1,000 of population.
Western.							
Paddington... ...	1,360	263	40	210	102	1,351	9·5
Kensington... ...	1,000	236	61	236	151	910	5·0
Hammersmith ...	1,128	216	62	190	160	1,056	8·0
Fulham	1,670	257	17	111	139	1,694	11·4
Chelsea	390	100	39	97	49	383	6·5
Westminster, City of	1,302	202	44	158	77	1,313	10·4
Northern.							
St. Marylebone ...	817	161	47	73	76	876	9·3
Hampstead... ...	453	104	38	129	46	420	4·6
St. Pancras... ...	1,682	300	94	234	213	1,629	8·8
Islington	3,277	565	157	366	329	3,304	10·5
Stoke Newington ...	314	76	35	55	38	332	6·5
Hackney	1,827	316	119	211	219	1,832	8·5
Central.							
Holborn	336	46	11	33	37	323	9·0
Finsbury	1,292	158	16	489	149	828	12·4
City of London ...	59	28	2	14	9	66	6·5
Eastern.							
Shoreditch	1,695	187	33	157	120	1,638	17·5
Bethnal Green ...	1,335	152	49	98	108	1,330	12·8
Stepney	3,147	485	—	955	253	2,424	11·1
Poplar	1,197	273	48	151	177	1,190	8·0
Southern.							
Southwark	1,784	340	—	274	179	1,671	10·1
Bermondsey ...	992	216	39	116	123	1,008	9·4
Lambeth	2,419	517	60	231	247	2,518	8·7
Battersea	1,106	241	62	166	157	1,086	7·1
Wandsworth ...	2,239	511	99	325	320	2,204	6·3
Camberwell... ...	2,106	379	90	177	263	2,135	8·8
Deptford	881	176	17	156	97	821	8·0
Greenwich	780	142	26	130	101	717	7·3
Lewisham	1,377	336	1	133	168	1,413	6·4
Woolwich	1,030	248	50	154	139	1,035	7·1
London	**38,995**	**7,231**	**1,356**	**5,829**	**4,246**	**37,507**	**8·7**

Vital statistics for the metropolitan boroughs and the County of London in the year 1933. (Rates per 1,000 of population.)

Metropolitan boroughs arranged in topographical order.	Estimated resident population 1933.	Births.	Deaths.	Infant mortality (per 1,000 births).	Measles	Scarlet fever.	Diphtheria.	Whooping cough.	Typhoid fever.	Diarrhœa and enteritis, age 0–2 (per 1,000 births).	Pulmonary tuberculosis.	Pneumonia.	Bronchitis.	Cancer.	Maternal mortality (per 1,000 births).	Notifications of infectious disease.					
																Scarlet fever.	Diphtheria.	Typhoid fever.	Erysipelas.	Cerebro-spinal fever.	Acute pneumonia.
Western.																					
Paddington	141,900	13·4	13·4	86	·05	·01	·13	·04	—	17·3	·63	·97	·42	1·63	5·25	2·80	1·96	·04	·47	·04	1·82
Kensington	181,100	12·0	12·9	73	·02	·01	·12	·06	·01	19·9	·68	1·05	·40	1·71	3·70	3·52	1·82	·07	·54	·03	1·15
Hammersmith	131,400	13·9	12·9	65	·02	·03	·11	·04	·01	10·9	1·05	·86	·43	1·76	4·38	6·81	1·83	·06	·75	·05	1·37
Fulham	148,200	13·1	13·0	65	·01	·04	·05	·09	—	12·9	·86	·79	·46	1·69	4·64	4·86	1·24	·03	·70	·03	1·39
Chelsea	58,850	10·6	13·6	78	·03	—	·12	·07	—	24·0	·61	·75	·41	1·95	—	3·88	1·53	·02	·49	·02	1·98
Westminster, City of	126,300	8·8	12·5	67	·02	·03	·01	·05	·01	10·8	·72	·78	·51	1·78	3·59	2·57	·96	·04	·41	·03	·52
Northern.																					
St. Marylebone	94,080	9·7	13·0	56	—	—	·01	·06	—	13·1	·60	·88	·35	2·07	8·73	2·11	·81	·09	·81	·01	·82
Hampstead	90,380	9·6	11·0	38	—	—	·03	·03	—	6·9	·41	·54	·30	1·63	—	5·18	1·33	·04	·50	·03	1·31
St. Pancras	190,900	13·6	13·7	58	·02	·02	·07	·08	—	11·6	·90	·91	·43	1·92	3·86	3·44	1·90	·03	·63	·04	1·68
Islington	314,200	14·5	12·6	63	·05	·01	·10	·08	·01	12·9	·88	1·09	·54	1·65	3·72	3·89	1·76	·04	·59	·02	·97
Stoke Newington	51,120	12·6	12·3	46	—	·02	·12	·10	·02	13·9	·59	·68	·41	1·70	9·29	5·12	1·26	—	·61	—	·53
Hackney	214,300	14·0	11·5	51	·01	·03	·09	·05	·00	8·0	·80	·78	·42	1·52	3·33	5·41	2·21	·02	·61	·04	·97
Central.																					
Holborn	36,050	9·5	13·5	70	·03	·06	·08	—	—	17·5	·72	·78	·33	1·69	8·77	2·67	2·06	·03	·53	·08	1·03
Finsbury	66,640	15·2	12·8	51	·05	·02	·11	·11	—	5·9	1·13	·78	·62	1·55	1·98	6·73	3·84	·02	1·11	·05	1·66
City of London (a)	10,200	7·5	10·7	65	—	—	—	—	—	13·0	·69	·69	·49	1·18	12·99	3·74	1·47	·10	·79	·10	—
Eastern.																					
Shoreditch	93,550	16·0	13·0	74	·07	—	·16	·15	—	14·7	·96	1·12	·60	1·44	4·02	6·48	3·79	·02	·64	·14	·68
Bethnal Green	104,200	14·3	12·5	66	·06	·03	·09	·11	—	20·7	·71	1·22	·37	1·38	1·34	7·50	4·69	·04	·95	·19	2·16
Stepney	219,100	15·1	12·9	64	·00	·02	·06	·14	·01	17·8	·94	1·22	·40	1·59	3·32	6·71	3·62	·04	1·04	·11	1·77
Poplar	149,300	15·4	12·5	54	·01	·04	·12	·09	·01	4·4	·89	·84	·80	1·37	1·74	6·07	3·81	·03	·61	·05	2·93
Southern.																					
Southwark	164,000	14·1	14·0	63	·04	·02	·07	·14	·02	13·7	1·04	1·03	·53	1·75	2·58	7·72	2·96	·04	·84	·13	1·33
Bermondsey	107,300	14·0	12·4	62	·07	·04	·13	·05	—	9·3	·91	·85	·53	1·50	3·33	5·98	3·61	·02	·64	·04	1·28
Lambeth	289,000	13·6	13·1	63	·04	·01	·09	·07	·00	12·4	·85	·87	·48	1·65	1·78	4·62	1·93	·03	·58	·04	1·58
Battersea	154,000	14·7	12·5	49	·01	·04	·08	·08	·01	9·7	·81	·65	·52	1·88	2·21	5·77	2·92	·03	·75	·03	2·38
Wandsworth	350,200	11·0	11·7	51	·01	·02	·04	·08	·01	9·6	·73	·52	·45	1·71	5·46	3·71	1·25	·05	·42	·02	1·63
Camberwell	243,700	13·3	12·3	49	·02	·02	·08	·08	—	10·2	·92	·69	·54	1·85	4·93	6·26	2·00	·05	·70	·04	1·43
Deptford	102,800	14·8	12·1	54	·01	—	·05	·09	·01	9·9	·91	·82	·51	1·33	5·92	6·89	2·14	·02	·90	·07	1·54
Greenwich	97,830	13·7	11·9	66	·02	·03	·14	·08	—	11·9	·98	·74	·46	1·72	5·23	6·88	4·06	·02	·85	·08	1·68
Lewisham	221,100	12·2	10·3	40	·00	·02	·09	·04	·01	5·2	·64	·53	·34	1·36	2·59	5·06	1·60	·05	·49	·06	1·42
Woolwich	146,200	12·7	11·2	62	·01	—	·10	·06	—	5·9	·79	·59	·36	1·42	3·23	6·78	2·48	·03	·47	·04	1·58
London, 1933	**4,298,600**	**13·2**	**12·5**	**60**	**·02**	**·02**	**·08**	**·08**	**·01**	**11·7**	**·82**	**·83**	**·47**	**1·65**	**3·67**	**5·11**	**2·23**	**·04**	**·65**	**·05**	**1·47**
London, 1932	*4,357,800*	*14·3*	*12·3*	*67*	*·19*	*·02*	*·07*	*·08*	*·00*	*12·5*	*·82*	*·84*	*·47*	*1·61*	*2·99*	*3·26*	*1·87*	*·04*	*·51*	*·06*	*1·31*

(a) Including Inner and Middle Temple.

County of London.—Notifiable infectious diseases.—Notifications per 1,000 of population.

Period	Annual rates per 1,000 living.																	
	Anthrax	Cerebrospinal fever	Continued fever	Diphtheria	Dysentery	Encephalitis lethargica	Enteric fever	Erysipelas	Malaria	Ophthalmia neonatorum (per 1,000 births)	Pneumonia	Polio-encephalitis	Polio-myelitis	Puerperal fever (per 1,000 births)	Puerperal pyrexia (per 1,000 births)	Scarlet fever	Smallpox	Typhus
1891–95	(a)	(a)	·00	2·4	(a)	(a)	·78	1·54	(a)	(a)	(a)	(a)	(a)	2·17	(a)	5·3	·26	·00
1896–1900	(a)	(a)	·00	2·9	(a)	(a)	·82	1·24	(a)	(a)	(a)	(a)	(a)	2·03	(a)	4·4	·02	·00
1901–05	(a)	(a)	·00	1·9	(a)	(a)	·52	1·08	(a)	(a)	(a)	(a)	(a)	2·10	(a)	3·6	·46	·00
1906–10	(a)	(a)	·00	1·6	(a)	(a)	·28	·97	(a)	(a)	(a)	(a)	(a)	2·27	(a)	4·2	·00	·00
1911–15	·00	·05	·00	1·8	(a)	(a)	·17	·98	(a)	(a)	(a)	(a)	(a)	3·11	(a)	3·6	·00	·00
1916–20	·00	·07	·00	2·3	(a)	(a)	·09	·60	(a)	8·95	(a)	(a)	·02	3·00	(a)	2·7	·00	·00
1921–25	·00	·02	·00	2·86	·00	·05	·08	·43	·03	9·05	1·24	·00	·01	3·59	(a)	3·69	·00	·00
1926–30	·00	·02	·00	2·81	·01	·03	·08	·47	·01	9·89	1·46	·00	·01	4·10	(a)	3·28	·33	·00
1921 ...	·00	·02	·00	3·62	·01	·05	·07	·47	·05	10·81	·96	·00	·01	3·55	(a)	7·27	·00	·00
1922 ...	·00	·02	·00	3·38	·01	·01	·06	·43	·03	9·17	1·56	·00	·01	3·28	(a)	3·81	·02	·00
1923 ...	·00	·01	·00	2·26	·00	·02	·07	·40	·02	8·33	1·04	·00	·02	3·84	(a)	2·21	·00	—
1924 ...	·00	·02	·00	2·30	·00	·13	·09	·41	·02	8·36	1·47	·00	·02	3·43	(a)	2·50	·00	—
1925 ...	·00	·02	·00	2·72	·00	·06	·09	·42	·01	8·58	1·18	·00	·01	3·83	(a)	2·66	·00	—
1926 ...	·00	·02	·00	2·95	·00	·05	·07	·39	·01	8·97	1·22	·00	·02	4·24	(a)	2·68	·00	—
1927 ...	·00	·02	·00	2·69	·01	·03	·07	·43	·01	11·11	1·49	·00	·02	3·57	12·21	2·91	·00	—
1928 ...	·00	·02	·00	2·74	·01	·02	·13	·48	·02	10·19	1·38	·00	·01	4·09	10·67	3·45	·07	·00
1929 ...	·00	·03	·00	2·68	·01	·02	·08	·49	·01	10·42	1·98	·00	·01	4·46	10·84	3·60	·43	—
1930 ...	·00	·02	·00	3·01	·01	·01	·07	·54	·01	8·74	1·24	·00	·01	4·15	10·48	3·74	1·15	·00
1931 ...	·00	·04	·00	1·90	·01	·01	·04	·52	·01	9·60	1·56	·00	·01	4·44	12·64	2·72	·33	—
1932 ...	·00	·06	·00	1·86	·02	·01	·04	·51	·01	11·07	1·31	·00	·02	3·51	11·94	3·25	·26	—
1933 ...	·00	·05	·00	2·23	·01	·01	·04	·65	·00	9·31	1·47	·00	·01	4·51	14·81	5·11	·12	—

(a) Comparable figures are not available for this period.

County of London.—Principal vital statistics, 1891–1933.

Period	Annual rate per 1,000 living			Mortality per 1,000 living																Annual mortality per 1,000 births			
												Tuberculosis											
	Births	Marriages	Deaths (all causes)	Cerebrospinal fever	Diphtheria	Enteric fever	Scarlet fever	Smallpox	Whooping-cough	Measles	Influenza	Pulmonary	Non-pulmonary	Pneumonia (all forms)	Bronchitis	Other resp. diseases	Heart disease	Cancer	Diabetes	Infants 0—1	Diarrhœa and enteritis 0—2	Puerperal fever	Other acc. of ch. birth
1891–95	30·8	17·3	19·8	(a)	0·53	0·13	0·24	0·02	0·52	0·59	0·41	1·83	0·80	1·45	2·45	0·48	(a)	0·80	0·07	156	23·8	2·15	2·22
1896–1900	29·7	18·4	18·5	(a)	0·45	0·14	0·14	0·00	0·47	0·57	0·27	1·75	0·69	1·32	1·80	0·35	(a)	0·92	0·07	162	41·3	1·70	1·74
1901–05	28·6	17·7	16·4	(a)	0·20	0·08	0·11	0·07	0·36	0·45	0·17	1·58	0·57	1·46	1·41	0·26	1·31	1·01	0·08	139	30·4	1·64	1·52
1906–10	26·5	17·4	14·9	(a)	0·14	0·04	0·10	0·00	0·29	0·42	0·22	1·39	0·48	1·49	1·22	0·22	1·26	1·11	0·10	114	23·8	1·46	1·47
1911–15	24·0	20·0	14·8	0·02	0·13	0·03	0·05	0·00	0·22	0·43	0·16	1·39	0·39	1·33	1·29	0·21	1·54	1·16	0·11	108	28·0	1·40	1·57
1916–20	20·0	20·1	15·1	0·04	0·17	0·02	0·03	0·00	0·20	0·28	1·01	1·43	0·34	1·38	1·30	0·19	1·70	1·28	0·09	92	15·4	1·64	1·72
1921–25	19·9	17·9	12·3	0·01	0·17	0·01	0·04	0·00	0·15	0·17	0·32	1·01	0·19	1·14	0·97	0·16	1·66	1·38	0·10	71	11·7	1·36	1·63
1926–30	16·2	18·6	12·3	0·02	0·10	0·01	0·02	0·00	0·11	0·16	0·30	0·90	0·14	1·00	0·72	0·16	2·29	1·52	0·12	64	10·2	1·66	1·69
1923	20·1	17·2	11·4	0·01	0·13	0·01	0·03	0·00	0·09	0·08	0·17	0·97	0·19	0·95	0·84	0·15	1·60	1·39	0·10	61	10·3	1·37	1·52
1924	18·6	17·2	12·2	0·01	0·12	0·01	0·03	0·00	0·11	0·29	0·37	0·98	0·18	1·16	0·98	0·15	1·69	1·42	0·10	69	8·7	1·24	1·84
1925	17·9	17·2	11·9	0·01	0·11	0·01	0·02	0·00	0·19	0·07	0·24	0·95	0·17	1·04	0·90	0·16	1·77	1·44	0·09	68	10·8	1·42	1·77
1926	17·1	17·2	11·6	0·02	0·12	0·01	0·02	0·00	0·05	0·20	0·18	0·88	0·15	0·94	0·79	0·16	1·79	1·46	0·10	64	12·0	1·61	1·74
1927	16·1	18·2	12·1	0·01	0·09	0·01	0·01	0·00	0·12	0·04	0·40	0·91	0·14	1·00	0·83	0·17	2·01	1·49	0·11	59	7·6	1·31	1·60
1928	16·2	18·9	12·1	0·01	0·09	0·01	0·02	0·00	0·09	0·30	0·13	0·89	0·14	0·93	0·59	0·16	2·22	1·52	0·12	67	10·3	1·59	2·00
1929	15·8	19·1	14·2	0·02	0·08	0·01	0·02	0·00	0·26	0·05	0·71	0·96	0·13	1·33	0·97	0·20	2·93	1·55	0·13	71	11·0	1·88	1·73
1930	15·8	19·5	11·6	0·02	0·10	0·01	0·03	0·00	0·03	0·23	0·08	0·87	0·12	0·78	0·44	0·12	2·51	1·57	0·12	59	9·9	1·93	1·40
1931	14·9	18·7	12·3	0·03	0·06	0·01	0·02	0·00	0·07	0·03	0·25	0·88	0·12	1·01	0·59	0·14	2·83	1·62	0·13	65	9·7	2·01	1·80
1932	14·3	18·0	12·3	0·03	0·07	0·00	0·02	0·00	0·08	0·19	0·28	0·82	0·12	0·84	0·47	0·14	2·91	1·61	0·13	67	12·5	1·33	1·66
1933	13·2	18·9	12·5	0·03	0·08	0·01	0·02	0·00	0·08	0·02	0·52	0·82	0·11	0·83	0·47	0·15	3·06	1·65	0·14	60	11·7	1·69	1·97

(a) Comparable figures are not available for this period.

Infectious Diseases.—Notifications in the County of London during the 52 weeks ended 31st December, 1933.

Metropolitan boroughs in topographical order.	Anthrax.	Cerebro-spinal fever.	Continued fever.	Diphtheria (including membranous croup).	Dysentery.	Encephalitis lethargica.	Enteric fever.	Erysipelas.	Malaria.	Ophthalmia neonatorum.	Pneumonia.	Polio-encephalitis.	Polio-myelitis.	Puerperal fever.	Puerperal pyrexia.	Scarlet fever.	Smallpox.	Typhus.
Western—																		
Paddington ...	–	6	1	277	1	–	6	66	1	20	258	–	3	12	53	396	1	–
Kensington ...	–	5	–	328	6	–	12	98	1	6	208	–	1	12	46	636	–	–
Hammersmith ...	–	6	–	240	3	1	8	98	–	10	179	–	4	10	32	892	–	–
Fulham ...	–	5	–	184	–	–	5	103	1	15	206	1	1	11	31	719	–	–
Chelsea	–	1	–	90	1	–	1	29	–	4	116	–	2	3	9	228	–	–
Westminster, City of	–	4	–	121	–	1	5	52	–	8	65	–	2	4	10	324	1	–
Northern—																		
St. Marylebone	–	1	–	76	1	1	8	76	–	6	77	–	–	8	16	198	–	–
Hampstead ...	–	3	–	120	1	–	4	45	1	6	118	–	–	2	15	467	1	–
St. Pancras ...	–	8	–	361	1	–	5	120	3	42	319	–	7	20	43	654	–	–
Islington ...	–	7	–	553	5	–	14	184	–	87	304	1	8	37	72	1,219	11	–
Stoke Newington	–	–	–	64	–	–	–	31	–	8	27	–	–	2	14	261	–	–
Hackney ...	–	8	1	472	1	1	5	130	–	15	208	2	2	13	83	1,157	13	–
Central—																		
Holborn ...	–	3	–	74	–	1	1	19	1	6	37	–	–	3	4	96	1	–
Finsbury ...	–	3	–	255	1	1	1	74	–	21	110	–	1	4	16	447	5	–
City of London	–	1	–	15	–	–	1	8	–	1	–	–	–	–	–	38	–	–
Eastern—																		
Shoreditch ...	–	13	–	354	–	–	2	60	–	25	63	–	2	4	31	605	29	–
Bethnal Green	–	20	–	487	2	–	4	99	2	9	224	–	–	2	18	779	11	–
Stepney... ...	–	23	–	790	1	3	9	227	1	32	386	–	–	12	38	1,466	23	–
Poplar	–	7	–	567	–	2	5	91	1	23	436	–	1	8	27	904	141	–
Southern—																		
Southwark ...	2	21	–	486	1	1	6	138	–	19	218	–	3	12	26	1,268	63	–
Bermondsey ...	–	4	–	386	1	–	2	68	–	7	137	–	1	6	24	640	21	–
Lambeth ...	–	11	–	556	5	2	9	166	2	30	455	–	5	22	48	1,332	127	
Battersea ...	–	4	1	449	–	2	4	115	–	16	365	1	–	3	14	886	4	–
Wandsworth ...	–	8	2	437	–	2	16	145	2	47	570	1	5	17	30	1,297	1	–
Camberwell ...	–	10	–	486	–	4	11	171	1	14	348	–	2	11	47	1,522	55	–
Deptford ...	–	7	–	219	–	–	2	92	1	10	158	–	1	4	15	706	–	–
Greenwich ...	–	8	–	396	–	–	2	83	1	18	164	–	1	1	9	671	–	–
Lewisham ...	1	13	–	352	–	–	11	109	–	13	312	–	6	7	32	1,115	21	–
Woolwich ...	–	6	–	362	–	–	5	69	2	9	231	–	2	5	35	988	2	–
Ages 0– ...	–	41	–	157	1	1	3	67	–	527	156	–	3	–	–	145	4	–
„ 1– ...	–	57	1	2,817	7	1	7	89	–	–	764	2	25	–	–	5,951	34	–
„ 5– ...	–	27	–	3,587	9	1	15	81	1	–	524	4	13	–	–	8,811	83	–
„ 10– ...	–	18	–	1,493	1	2	20	116	–	–	248	–	6	–	–	4,105	104	–
„ 15– ...	–	18	–	473	–	2	24	135	–	–	348	–	5	8	60	1,009	86	–
„ 20– ...	–	22	–	381	1	6	28	160	2	–	388	–	3	58	266	733	67	–
„ 25– ...	1	18	1	411	3	4	30	315	3	–	785	–	4	147	400	743	60	–
„ 35– ...	1	6	–	150	4	1	15	392	7	–	858	–	–	41	111	284	29	–
„ 45– ...	1	5	3	62	4	1	14	553	6	–	892	–	–	1	1	107	30	–
„ 55– ...	–	4	–	17	1	2	6	459	2	–	637	–	–	–	–	16	31	–
„ 65– ...	–	–	–	5	–	–	2	295	–	–	461	–	–	–	–	6	3	–
„ 75+ ...	–	–	–	4	–	1	–	104	–	–	238	–	1	–	–	1	–	–
London, 1933 ...	**3**	**216**	**5**	**9,557**	**31**	**22**	**164**	**2,766**	**21**	**527**	**6,299**	**6**	**60**	**255**	**838**	**21,911**	**531**	**–**
London, 1932 ...	*3*	*247*	*4*	*8,087*	*79*	*47*	*195*	*2,230*	*41*	*687*	*5,673*	*10*	*79*	*218*	*741*	*14,119*	*1,131*	*–*

Administration.

Common and seamen's lodging houses.

The powers and duties of the Council relating to the licensing and inspection of common and seamen's lodging houses were transferred to metropolitan borough councils on 1st April, 1933, under the provisions of the Transfer of Powers (London) Order, 1933. At that date there were 149 licensed common lodging houses within the county (excluding the City of London), with accommodation for a total of 16,482 persons. The number of seamen's lodging houses was 20, with accommodation for 1,025 lodgers.

Census of homeless persons.

A census of homeless persons in London was taken on the night of Friday, 17th February, 1933. The area covered extended over the whole of the county, except such of the outlying portions as are not usually the resort of such persons. The night was clear and cold. No persons were found sheltering under arches or on staircases. In the streets 28 men and 13 women were found, compared with 73 men and 14 women on the night of the census in 1932. In the common lodging houses 12,780 persons were accommodated compared with 13,966 in 1932. In the free shelters and labour homes not licensed, 1,501 men, 164 women and 15 children were accommodated compared with 1,208 men, 138 women and 20 children in 1932. The number of persons in casual wards and in the associated hostel on the night in question was 615, all males.

The following table shows briefly the results obtained in the several years during which the enumeration has been undertaken by the Council :—

Persons.					Persons.				
Year.	Common lodging houses (inmates)	Casual wards (inmates)	Homeless.	Total.	Year.	Common lodging houses (inmates)	Casual wards (inmates)	Homeless.	Total.
1904	23,442	1,218	1,797	26,457	1920	14,333	88	51	14,472
1905	23,381	1,139	2,181	26,701	1921	14,090	188	66	14,344
1907	22,450	1,137	2,404	25,991	1922	13,076	289	112	13,477
1909	21,864	1,188	2,388	25,440	1923	13,891	400	141	14,432
1910	21,156	1,107	2,747	25,010	1924	14,165	429	82	14,676
1911	21,204	1,091	1,785	24,080	1925	14,425	503	118	15,046
1912	21,499	1,033	1,203	23,735	1926	14,593	668	103	15,364
1913	20,526	546	649	21,721	1927	14,724	777	101	15,602
1914	20,173	335	540	21,048	1928	14,738	835	78	15,651
1915	17,305	179	178	17,662	1929	14,648	860	31	15,539
1916	15,254	123	44	15,421	1930	14,855	740	79	15,674
1917	13,679	89	28	13,796	1931	14,970	689	78	15,737
1918	12,522	82	9	12,613	1932	13,966	836	87	14,889
1919	12,336	50	8	12,394	1933	12,780	615	41	13,436

Note—The area covered in 1904 was less than in later years—to be comparable with other years the figures in the "Homeless" column should be 2,000.

Future enumerations of homeless persons in London will be taken under the direction of the Public Assistance Committee of the Council with whose work the subject is more intimately associated.

County of London.—Statistics of the administrative work carried out by the Metropolitan Borough Councils during the year 1933.

Sanitary authority.	Cow-sheds.		Slaughter-houses.		Offensive trades.		Smoke nuisances.				Common lodging houses.		Cleansing of persons and rooms.				Water supply.	Milk-shops.		Ice cream premises.		Premises where food is prepared for sale.	
													Persons.		Rooms or premises.								
	No. licensed.	No. of inspections.	No. licensed.	No. of inspections.	No. authorised.	No. of inspections.	Observations.	Intimations.	Complaints.	Notices.	Houses licensed.	No. of inspections.	Adults.	Children.	After infectious diseases.	For vermin.	Tenement houses extra supply.	No. on register.	No. of inspections.	No. on register.	No. of inspections.	No. of places.	No. of inspections.
City of London...	—	—	—	—	—	—	208	—	26	—	1	4	100	1,067	—	206	—	291	187	1	1	940	449
Battersea ...	—	—	2	136	3	6	13	11	6	—	3	52	223	3,385	1,990	267	14	307	688	204	350	184	635
Bermondsey ...	—	—	—	—	14	101	67	12	9	1	3	50	85	2,882	1,249	766	28	298	651	133	388	134	519
Bethnal Green ...	8	49	2	208	9	187	67	3	—	1	5	44	220	3	1,473	578	—	316	959	171	372	201	684
Camberwell ...	1	14	2	114	10	33	98	8	20	1	5	150	32	5,340	3,689	579	10	481	1,781	310	328	191	219
Chelsea ...	—	—	1	14	—	—	25	—	15	—	2	18	22	546	379	316	—	72	77	30	30	70	45
Deptford ...	—	—	2	210	7	58	19	4	—	—	6	146	26	1,858	1,256	172	1	239	395	158	154	44	563
Finsbury ...	—	—	2	202	3	41	89	4	20	3	2	71	34	2	1,269	266	16	178	258	91	222	288	390
Fulham ...	—	—	2	89	—	—	69	3	16	1	2	48	18	—	1,308	272	—	112	515	155	171	128	370
Greenwich ...	3	5	3	182	2	8	31	6	25	2	2	7	6	978	1,171	47	1	105	194	154	129	73	112
Hackney ...	3	32	14	579	13	35	1194	18	34	5	4	39	96	1,961	2,522	641	10	550	581	276	391	209	325
Hammersmith ...	—	—	5	536	2	17	145	4	13	—	1	3	207	2,244	1,382	25	34	142	1,109	161	182	187	698
Hampstead ...	—	—	—	—	—	—	2	2	2	—	—	—	9	969	1,840	233	83	84	153	70	61	64	59
Holborn ...	—	—	1	12	—	—	186	8	12	—	6	79	201	11	278	191	7	140	135	28	95	287	514
Islington ...	—	—	10	192	7	55	150	22	35	2	19	532	76	5,951	2,634	138	191	403	914	408	283	516	719
Kensington ...	—	—	2	122	—	—	194	—	2	—	5	126	393	3,957	1,380	377	39	151	403	206	116	155	1,538
Lambeth ...	1	12	4	368	3	42	277	14	24	—	3	80	129	—	5,514	1,041	2	452	1,632	358	603	231	345
Lewisham ...	1	2	7	779	—	—	166	3	7	1	—	—	3	907	1,833	135	—	134	328	141	324	118	290
Paddington ...	—	—	2	250	1	50	137	—	11	—	3	66	42	5	123		19	127	344	157	160	131	150
Poplar ...	3	27	8	42	5	67	59	6	32	2	5	92	105	3,017	2,245	239	3	109	319	189	345	823	1,511
St. Marylebone...	—	—	2	40	2	46	428	6	19	—	3	96	2,907	2,899	468	739	25	141	250	84	126	347	430
St. Pancras ...	—	—	3	156	2	54	307	8	46	3	2	19	1,510	5,258	1,184	187	157	384	853	271	257	291	634
Shoreditch ...	2	18	—	—	1	6	33	6	1	—	4	18	4	—	1,272	49	33	272	1,290	137	301	228	516
Southwark ...	—	—	4	334	4	18	118	5	42	1	19	128	1,929	4,875	2,298	1,449	14	398	1,427	270	458	424	1,339
Stepney ...	19	150	41	243	9	28	289	70	66	7	19	309	226	13	2,529	734	15	358	1,475	327	465	319	601
Stoke Newington	—	—	4	40	2	13	4	—	10	—	—	—	—	1,831	390	200	5	83	124	49	57	34	115
Wandsworth ...	1	13	5	834	2	3	224	13	47	4	—	—	184	—	2,971	137	2	239	1,069	530	782	433	432
Westminster, City of	—	—	—	—	—	—	749	10	63	1	6	136	321	420	699	113	12	208	399	66	137	1,298	2,018
Woolwich ...	4	85	5	25	2	8	35	1	9	—	9	104	18	2,129	1,534	586	—	80	291	179	282	163	168

NOTE.—In the columns above a dash signifies a nil return.

Seamen's lodging houses, 19; Bermondsey, 3; Poplar, 4; Stepney, 12. Prosecutions—*Ice Cream.*—Hackney, 1; Islington, 3: *Milkshops.*—Greenwich, 1; Hackney, 2; Poplar, 6; St. Pancras, 2: *Offensive trades.*—Shoreditch, 1: *Water Supply*—Hammersmith, 4.

Borough.	No. of houses.		No. of houses inspected.		No. of notices served.			No. of houses repaired or nuisances remedied under P.H. Act.	No. of houses repaired under Housing Act, 1925/30.		Underground rooms.		Overcrowding.		Houses let in lodgings.		No. of houses closed by owner.	No. of houses for the working classes.		Houses unfit for habitation.						
					Under P.H. Act.															Representations.		Closing orders.		Demolition orders.		
																								No. of houses demolished.	
	In borough.	Occupied by the working classes.	Complaints or illness.	House to house.	Intimation.	Statutory.	Under Housing Act.		By owners.	By L.A.	No. illegally occupied.	No. closed or otherwise remedied	Instances found.	No. remedied.	No. on register.	No. of inspections.		Erected during year.	In course of erection.	No. made.	No. of houses.	No. made.	No. determined.	No. made.	In pursuance of orders.	Voluntarily.
City of London	2,109	500	106	190	25	3	53	100	—	—	1	1	8	1	46	122	—	—	—	—	—	—	—	—	6
Battersea ...	28,118	25,239	6,755	589	2,932	1,116	13	2,499	12	—	—	—	30	30	66	591	—	188	26	107	198	—	—	—	—	6
Bermondsey ...	18,827	18,683	3,876	4,483	6,194	2,278	—	6,194	1	—	16	2	2,346	435	200	1,734	—	382	367	11	413	1	—	8	7	175
Bethnal Green	18,285	prac. all	7,558	967	5,558	2,793	—	6,218	—	—	—	—	many	—	170	929	1	75	15	2	45	—	—	4	2	—
Camberwell ...	42,891	34,312	5,240	1,112	4,976	1,276	83	4,113	—	—	1	4	103	43	244	272	6	Flats 134	Flats 236	—	—	—	—	—	—	18
Chelsea ...	12,094	2,460	601	173	530	62	—	430	—	—	2	1	26	26	529	69	—	—	—	2	61	—	—	6	—	33
Deptford ...	18,000	16,200	2,369	1,587	2,748	777	18	2,878	18	—	4	4	—	—	Not separately registered.		—	284	—	5	4	—	—	14	—	—
Finsbury ...	10,503	prac. all	1,919	1,578	2,059	202	—	2,059	—	—	4	4	11	11	785	3,770	—	119	—	1	5	5	—	1	5	32
Fulham ...	26,723	prac. all	3,307	619	2,559	544	289	2,491	223	—	17	4	43	34	462	3,153	—	112	—	—	—	—	—	—	—	1
Greenwich ...	18,866	14,150	2,455	11	937	162	59	1,316	5	—	4	4	15	3	102	106	—	229	120	1	70	1	1	2	2	1
Hackney ...	36,605	14,916	6,282	1,614	4,870	958	16	5,005	10	—	15	15	75	34	460	832	—	160	382	5	108	10	—	8	8	41
Hammersmith	20,150	13,650	6,972	155	3,277	1,129	—	3,424	—	—	5	5	72	70	2,495	—	—	52	112	3	9	1	—	3	3	—
Hampstead ...	15,275	7,500 Tenements	1,178	508	1,092	183	7	652	—	—	23	5	17	1	1,548	441	—	—	—	—	—	—	3	—	—	14
Holborn ...	6,462	7,285	614	142	496	58	—	496	—	—	4	4	2	2	461	891	—	Flats 28	—	4	4	—	—	—	—	—
Islington ...	46,000	30,000	6,996	1,415	4,695	591	33	6,424	33	—	46	46	42	42	990	1,257	—	—	Flats 71	1	56	—	—	—	—	—
Kensington ...	35,316	9,877	3,041	1,815	2,573	454	125	2,512	137	—	32	32	45	44	3,159	10,874	—	Flats 20	Flats 364	2	25	25	3	—	—	—
Lambeth ..	48,873	—	12,339	452	3,830	157	119	4,498	163	—	15	11	—	—	—	—	—	527	300	125	125	8	—	14	4	8
Lewisham ...	48,000	—	2,724	554	1,528	458	—	892	—	—	—	—	14	8	—	56	—	—	—	1	1	1	—	—	—	—
Paddington ...	17,000	10,000	1,195	—	1,911	346	90	1,205	78	—	24	13	9	7	1,408	2,726	—	Flats 8	—	11	11	10	1	—	—	—
Poplar ...	23,583	23,000	7,402	6,634	5,076	2,204	2	4,784	2	—	5	4	40	42	186	927	—	159	—	12	77	2	—	—	—	86
St. Marylebone	17,508	8,596	2,316	748	1,457	32	—	1,489	—	—	63	63	26	26	1,055	8,589	—	Flats 63	178	—	—	—	—	—	—	—
St. Pancras ...	25,670	18,000	4,481	1,119	3,689	1,372	59	3,327	25	—	63	51	28	16	3,662	4,644	—	156	233	17	61	—	—	4	2	11
Shoreditch ...	14,102	13,616	7,252	1,303	4,470	542	—	4,470	1	—	17	12	237	201	410	588	—	26	24	—	—	5	—	1	—	57
Southwark	27,503	14,795	4,740	1,198	2,836	1,318	517	3,099	57	—	40	38	65	65	868	1,832	6	101	219	54	216	28	32	39	15	—
Stepney ...	37,738	31,689	12,370	5,842	13,203	4,882	5	12,364	1	—	88	47	68	50	2,690	2,537	—	80	112	4	4	—	—	4	4	5
Stoke Newington	8,681	3,974	816	310	679	29	—	1,605	—	—	—	—	1	1	—	—	—	—	100	6	58	57	—	—	—	9
Wandsworth ...	75,768	49,538	7,882	1,060	3,544	313	—	9,990	—	—	7	7	88	39	339	420	—	211	—	10	194	1	—	2	12	24
Westminster City of	22,536	6,012	2,285	1,128	1,223	50	—	1,457	—	—	90	47	34	112	412	8,315	—	187	55	2	21	—	—	1	1	132
Woolwich ...	32,113	27,420	4,285	1,293	2,695	578	1	2,606	1	—	4	2	20	18	—	587	—	1,039	520	11	77	2	—	5	4	96

NOTE.—In many cases, it has been impossible to take effective action in the matter of overcrowding owing to the shortage of houses.

Prosecutions—*Houses let in lodgings:* Battersea, 8; Bethnal Green, 8; Islington, 2; Kensington, 5; Lambeth 3; Paddington, 2; Poplar, 3; St. Pancras, 2.
Overcrowding—Hammersmith 2; Kensington, 1; Poplar 1; St. Pancras 1; Shoreditch 2.

Housing Acts.—A full account of the action taken under the various Housing Acts will be found in Volume II of the Annual Report of the Council, 1933.

SANITARY INSPECTORS, 1933.

Sanitary authority.	Population (Census) 1931	Male.		Female.		Health visitors.	
		Whole time.	Part time.	Whole time.	Part time.	Whole time.	Part time.
City of London	10,999	25	—	1	—	1	—
Battersea	159,552	10	—	—	2	8	2
Bermondsey	111,542	12	—	—	—	10	—
Bethnal Green	108,194	11	—	—	—	12	—
Camberwell	251,294	12	—	2	—	12	2
Chelsea	59,031	4	—	—	1*	—	1*
Deptford	106,891	8	—	—	1	7	2
Finsbury	69,888	8	—	1	—	6	—
Fulham	150,928	10	—	1	—	7	—
Greenwich	100,924	7	—	1	—	7	—
Hackney	215,333	18	—	1	—	14	—
Hammersmith	135,523	9	—	1	—	4	—
Hampstead	88,947	6	—	—	1	4	1
Holborn	38,860	3	—	—	1	1	1
Islington	321,795	20	—	2	—	8	—
Kensington	180,677	13	—	—	7*	—	7*
Lambeth	296,147	16	—	2	—	6	—
Lewisham	219,953	10	—	1	—	9	—
Paddington	144,923	8	—	2	—	9	1
Poplar	155,089	14	—	1	—	10	—
St. Marylebone	97,627	8	3	—	3	3	3
St. Pancras	198,133	14	—	1	5*	16	5*
Shoreditch	97,042	10	—	—	—	6	—
Southwark	171,695	14	—	1	—	9	—
Stepney	225,238	19	—	—	—	11	—
Stoke Newington ...	51,208	3	—	—	—	3	1
Wandsworth	353,110	15	—	—	—	9	—
Westminster, City of ...	129,579	12	—	1	—	8	—
Woolwich	146,881	11	—	1	2	9	2
Total County of London	**4,397,003**	**330**	**3**	**20**	**23**	**209**	**28**

* Act both as sanitary inspectors and health visitors.

Slum Clearance.

To the historian of slum clearance the year 1933 will be one of great importance. In the early part of the year the Minister of Health issued circular 1331, calling upon local authorities to give urgent attention to slum conditions and to submit time-tables indicating the period within which complete clearance would be effected.

Reference was made to such knowledge of working class housing conditions as had already, during the previous twenty years, been acquired by local authorities, and a short period was suggested for the preparation of programmes based on this knowledge. In view of its magnitude the problem in London was referred to separately, and the need for more time than applied to the country generally was recognised. Moreover it is in London a concern of not merely one but twenty-nine authorities, the County Council performing the triple task of collaborator, co-ordinator, and chief contributor.

The metropolitan borough councils were invited to submit to the Council their proposals and programmes.

A glance at maps of the county at different periods will show that, during the last century, housing accommodation in its gradual growth outwards from the city has moved, as it were, reluctantly and the core now presents a tangled inelastic congestion, which lacks room for expansion and which is actually suffering from increasing pressure by reason of the intrusion of industry and commerce and the consequent increased housing demands. It is not to be inferred that the whole core consists of slums, but the relief of the worst conditions is rendered more difficult by the lack of a neighbouring fringe upon which to extend.

From these considerations it becomes apparent that a programme of slum clearance resolves itself into a programme of rehousing, which of course necessitates the provision of suitable sites. Indiscriminate representations of insanitary areas before effective action can be taken for rehousing are futile. There must be a definite prospect of orderly development.

The task in London is two-fold; clearance of the smaller unfit patches in densely populated but otherwise fairly satisfactory neighbourhoods, and, concurrently, a clearance of larger areas which, when cleared, can provide sites for blocks of modern dwellings.

There have been several surveys by the medical officer of housing conditions in London, one of the most important being that made in 1911. It was revised in 1927, and informal conferences with all the borough medical officers took place in 1931–32. Changes in details are constantly occurring, and during 1933 a further survey was made to bring the information up-to-date as far as time would permit, and a report was submitted to the Housing Committee containing a list of all the known areas suitable for clearance or improvement action under the 1930 Act, within a period of about 10 years. By the end of the year it had not, however, been found possible to confer in detail with each of the boroughs and decide upon the areas with which either the borough council or the Council would propose to deal. Broadly, action on the larger areas with the greater measure of machinery involved falls to the Council, and the clearance of the small patches—courts, alleys, and congested groups of houses, but no less serious slums—can usually be undertaken by the borough councils; rehousing in these cases frequently being provided by the Council.

Two improvement areas were represented during the year, but procedure under this section of the Act still presents difficulties and it is hoped that, with a wider legislative scope, such as is outlined in the Moyne Report, the "improvement" of suitable areas may be made more easy of achievement.

It must not be overlooked that before a representation under section 1 of the 1930 Act can be submitted, the property has to be examined with great care and in sufficient detail to make a just representation and withstand antagonistic cross-examination at subsequent inquiries. The actual premises which form the subject of the final representation cover only a portion of a larger area examined. Further, it is necessary to survey areas where condemnable housing is only suspected, or in connection with inquiries from other departments or authorities or on official notification of borough schemes.

During the year two medical officers, one of whom, however, retired in June, and seven inspectors were engaged on the work, but, in order to cope with the increased activity demanded, arrangements were made towards the close of the year to increase the staff of the housing section very considerably.

The first definite move in the train of action leading to the clearance of a slum is usually the representation submitted to his authority by a medical officer of health, and the statement below indicates the extent of the representations which have been submitted during the year ended 31st December, 1933:—

**Clearance*—

Number of areas represented under section 1 of Housing Act, 1930	20
Number of houses included	1,587 (plus a block of 42 tenements)

Improvement—

Number of areas represented	2
Number of houses included	469

*The number of houses affected is often increased by the resolution of the Council, which may include other land than that dealt with in the representation.

Milk and Dairies (Consolidation) Act, 1915.

Examination of milk.

For several years it has been the practice for the Council to take samples of liquid milk arriving from the provinces, for biological examination for the purpose of ascertaining the extent to which the milk supply on its arrival in London is infected with tuberculosis. In the event of a positive result, the medical officer of the county of origin is notified, when arrangements are made by him for the farm from which the milk originated to be visited and the herd examined.

During 1933, 2,016 samples of milk, arriving in London by rail or road from 31 counties, were taken and examined (at the Southern group laboratory). Of these samples, 84 were taken from large road or rail tanks, a comparatively recent method of transporting milk.

The following table shows the number of infected samples taken from both churn and tank milks in each of the four quarters of 1933 :—

1933	Completed examinations.	Number tuberculous.	Percentage.
1st quarter—churn milk	556	46	8·3
tank milk	40	34	85·0
2nd quarter—churn milk	662	30	4·5
tank milk	28	22	78·6
3rd quarter—churn milk	555	73	13·2
tank milk	4	1	25·0
4th quarter—churn milk	159	15	9·4
tank milk	12	11	91·7
Total	2,016	232	11·5

Of the 2,016 samples examined, 232, or 11·5 per cent., yielded tubercle bacilli, as against 10·9 per cent. in 1932. Excluding tank milk, the percentage in 1933 was 8·5, compared with 9·2 in 1932.

From the reports forwarded by the county medical officers of health for those counties from which the tubercular samples originated, it would appear that 74 cows from the herds concerned had been found to be affected with tuberculosis and were slaughtered under the Tuberculosis Order, 1925.

The obvious difficulty of tracing to their source infected samples taken from milk in bulk in tanks creates a very unsatisfactory position as the usefulness of sampling in London, for the biological test is largely negatived if the results are not followed up, an almost impossible task in the case of tank milk. This matter was made the subject of a special report by the Central Public Health Committee to the Council and representation was made to the Ministers of Health and of Agriculture with a view to seeking a solution of the difficulties in this respect, created by modern methods of milk transport.

Institutions under the control of the Council.

The cows kept at institutions under the control of the Council have been inspected quarterly by the Council's veterinary surgeons. In addition, samples of the milk have been taken twice during the year. The results of sampling and of veterinary inspection were as follows :—

Results of Milk Sampling.

Department	Number of samples taken	Number found to be tubercle infected	Number found to be negative
Education	15	1	14
Mental hospitals	213	15	198
Public assistance	87	4	83
Public health	25	—	25

The percentage of samples found to be tubercle infected was 5·9.

RESULTS OF VETERINARY INSPECTION.

Department	Number of visits	Number of examinations made			Number of cows with tuberculosis	Number of cows with other unhealthy conditions (apart from T.B.)
		Cows	Bulls	Young stock		
Education ...	8	31	—	—	1	1
Mental hospitals	60	3,670	71	373	14	98
Public assistance	9	69	2	4	2	2
Public health ...	9	216	8	142	—	9

The veterinary surgeons confer with the farm bailiffs when making the inspections and give such advice as may be necessary.

Licensed cowsheds.

The cows in the London licensed sheds are inspected under the provisions of Part IV of the Milk and Dairies Order, 1926. The veterinary surgeons make a routine quarterly inspection of the cows at each cowshed. The results are shown below :—

Number of visits to cowsheds	191
Number of cows examined	3,594
Number of cows presenting unhealthy conditions as follows—	205
Giving tuberculous milk	9
With chronic cough showing clinical signs of tuberculosis...	3
With atrophy of one or more quarters	115
With other defects (mastitis, etc.)	78

The animals found to be tuberculous were slaughtered, either voluntarily by the owners or by the Council under the provisions of the Tuberculosis Order, 1925.

Venereal Diseases.

In his annual report for the year 1916, Sir William Hamer, at that time county medical officer of health, gave particulars of a scheme for the provision of the necessary facilities for the diagnosis and treatment of venereal disease which had been formulated as a result of conferences between representatives of the counties of London, Buckingham, Essex, Hertford, Kent, Middlesex and Surrey, and of the county boroughs of Croydon, East Ham and West Ham.

The Local Government Board, in due course, signified its approval of the scheme, which came into operation on 1st January, 1917, and is known as the London and Home Counties Scheme.

Hospitals.

The general and special hospitals undertaking in-patient or out-patient treatment and other work under the scheme at the end of 1933, were as follows :—

General Hospitals.—St. Thomas's ; Seamen's ; Royal Free (women) ; Guy's ; West London ; Royal Northern ; Middlesex ; St. Mary's ; St. George's ; University College ; Metropolitan ; King's College ; Albert Dock ; Miller General ; St. John's, Lewisham ; Westminster.

Special Hospitals.—South London hospital for Women ; St. Paul's ; Great Ormond-street (Children) ; Mothers' hospital (Salvation Army), Lower Clapton-road, E. ; Children's, Waddon.

Clinics with all-day medical and intermediate treatment have been provided at St. Thomas's hospital ; St. Paul's hospital ; Guy's hospital ; West London hospital ; the London County Council (Whitechapel) clinic (see page 36) and the Royal Free hospital (women).

In addition the following hospitals provide facilities for all-day intermediate treatment : Miller General hospital ; Royal Northern hospital ; St. John's hospital (Lewisham) ; St. Mary's hospital ; Seamen's hospital ; University College hospital.

The number of new patients attending the hospitals during the year 1933 was 28,714, of whom 4,710 were suffering from syphilis, 12,104 from gonorrhœa, and 195 from soft chancre, while 11,705 were diagnosed as not suffering from these diseases.

A summary of the work done by the hospitals for each of the areas in the joint scheme during the year 1933 is shown in the following table :—

	London.	Middlesex.	Essex.	Surrey.	Kent.	Herts.	Bucks.	East Ham.	West Ham.	Croydon.	Total.	"Other places."	Grand total.
New Patients—													
Syphilis	3,276	356	205	140	88	60	23	45	60	16	4,269	441	4,710
Soft chancre	130	7	10	—	5	4	2	2	2	1	163	32	195
Gonorrhœa	8,546	1,060	630	326	190	134	54	128	256	46	11,370	734	12,104
Not venereal	8,464	1,083	504	485	177	130	51	86	185	71	11,236	469	11,705
Total	20,416	2,506	1,349	951	460	328	130	261	503	134	27,038	1,676	28,714
Total attendances	856,592	81,165	55,244	25584	11021	8,502	2,900	11228	26025	2,407	1080668	16546	1097214
No.of in-patientdays	30,807	3,271	3,352	2,032	1,953	711	181	166	323	94	42,890	9,691	52,581
Salvarsan subs.doses	46,084	6,710	3,615	2,220	1,001	844	351	634	1,255	179	62,893	3,110	66,003
Pathological Examinations.													
For or at centres—													
Spirochaetes	2,297	109	102	63	22	30	11	17	17	8	2,676	116	2,792
Gonococci	86,701	8,161	7,854	4,551	1,964	1,102	657	1,306	3,140	505	115,941	2,376	118,317
Wassermann	33,137	3,128	2,022	1,628	647	524	217	405	755	213	42,676	1,549	44,225
Others	35,782	2,124	7,819	1,093	713	338	115	1,654	3,108	129	52,875	1,643	54,518
Total	157,917	13,522	17,797	7,335	3,346	1,994	1,000	3,382	7,020	855	214,168	5,684	219,852
For Practitioners—													
Spirochaetes	29	1	2	2	—	—	1	—	—	—	35	—	35
Gonococci	5,903	221	424	411	196	79	42	3	17	987	8,283	111	8,394
Wassermann	16,311	1,117	1,026	918	155	104	133	28	4	397	20,193	496	20,689
Others	8,532	208	764	377	33	25	3	25	3	391	10,361	170	10,531
Total	30,775	1,547	2,216	1,708	384	208	179	56	24	1,775	38,872	777	39,649

The distribution of new cases of venereal disease between the sexes is shown in the following table, the figures for the preceding years being given for comparison :—

Year.	New cases.						Total venereal cases.	
	Syphilis.		Soft chancre.		Gonorrhœa.			
	M.	F.	M.	F.	M.	F.	M.	F.
1917	4,427	3,351	199	11	3,830	1,207	8,456	4,569
1918	3,764	3,002	116	13	4,844	1,940	8,724	4,955
1919	6,394	3,391	463	18	10,441	2,440	17,298	5,849
1920	6,988	3,579	766	25	10,669	2,427	18,423	6,031
1921	5,088	3,100	458	13	8,573	2,136	14,119	5,249
1922	4,207	2,600	309	12	8,233	2,402	12,749	5,014
1923	4,497	2,631	311	4	9,043	2,520	13,851	5,155
1924	4,174	2,452	301	4	8,565	2,785	13,040	5,241
1925	3,556	2,346	268	11	8,464	2,857	12,288	5,214
1926	3,725	2,013	301	2	8,825	2,858	12,851	4,873
1927	3,886	2,209	203	7	9,637	2,859	13,726	5,075
1928	3,433	1,837	229	6	8,249	2,647	11,911	4,490
1929	3,303	1,628	276	4	8,271	2,503	11,850	4,135
1930	3,389	1,836	347	12	8,620	2,503	12,356	4,351
1931	3,009	1,521	326	12	7,713	2,260	11,048	3,793
1932	3,270	1,671	172	15	8,566	2,656	12,008	4,342
1933	3,072	1,638	185	10	8,791	3,313	12,048	4,961

The most notable figure during 1933 was the increase in new cases of female gonorrhœa presenting themselves for treatment. This is a most encouraging sign, as in the past one of the greatest difficulties in connection with the scheme has been

to ensure the attendance of women suffering from this complaint. Even now it is probable that many infected women are not receiving treatment.

With regard to the new cases of venereal disease, an attempt was made to ascertain whether the infection was recently acquired in patients attending the clinics for the first time during the year 1933, and also as to the number of cases of congenital syphilis. The returns received from the treatment centres showed that, as regards syphilis, in approximately 46 per cent. of the new patients the disease was in either a primary or secondary stage, and, in the case of gonorrhœa, in 83 per cent., the infection had taken place within a year. Cases of congenital syphilis not known to have received previous treatment, numbered 327. The age and sex distribution were as follows :—

Under 1 year.		1 and under 5 years.		5 and under 15 years.		15 years and over.		Total	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
25	26	8	17	34	54	54	109	121	206

Attendances

Importance is attached to the necessity for securing the regular attendance of patients at the clinics, more especially in the case of gonorrhœa, and efforts to secure the requisite provision of facilities for intermediate treatment at times other than during the hours when the medical officer attends are meeting with considerable success. A number of patients still fail to complete the full course of treatment considered necessary before final discharge, due in no small measure to the false impression that a cure has been effected on the disappearance of outward signs of the disease. The need for improving conditions likely to cause patients to discontinue attendance at the clinics continues to receive careful attention. Where necessary, patients are transferred from one clinic to another, which they can attend more conveniently.

In past years the ratio of attendances has been stated as so many attendances to each new case of V.D. admitted to the clinics during the year. By this means an estimate, comparable year by year, is obtained of the efficiency of the work as measured by the continued attendance. For the year 1933 the total attendances of V.D. patients was 1,019,474, and the ratio of attendances of V.D. patients to new V.D. cases was 59, compared with 55 in 1932 and 57 in 1931.

Comparative figures for the seventeen years during which the scheme has been in force are shown in the following table :—

Year.	New cases.			Total attendances (venereal and non-venereal)	In-patients days.
	Venereal.	Non-venereal	Total.		
1917	13,025	2,360	15,385	120,659	63,923
1918	13,679	2,693	16,372	169,485	66,095
1919	23,147	5,118	28,265	307,722	73,211
1920	24,454	6,592	31,046	464,033	81,612
1921	19,368	6,050	25,418	496,209	79,692
1922	17,763	5,950	23,713	529,003	112,564
1923	19,006	6,644	25,560	555,509	106,662
1924	18,281	7,292	25,573	589,002	102,456
1925	17,502	8,680	26,182	646,131	102,454
1926	17,724	8,988	26,712	687,075	101,735
1927	18,801	10,164	28,965	767,278	112,413
1928	16,401	9,595	25,996	763,535	65,106
1929	15,985	8,801	24,786	768,872	51,520
1930	16,707	10,162	26,869	836,219	51,216
1931	14,841	11,106	25,947	930,348	56,541
1932	16,350	11,602	27,952	983,921	54,023
1933	17,009	11,705	28,714	1,097,214	52,581

New cases, both venereal and non-venereal, are more numerous than in 1932. It has, however, already been explained that female cases of gonorrhœa account for most of the increase in the former. The increasing number of non-venereal patients who present themselves for examination indicates that the general public is appreciating more and more the efforts which have been, and are being, made to spread far and wide a knowledge of the serious nature and grave after-effects of the venereal diseases.

The increased attendances show that patients are willing to take advantage of the improved facilities for intermediate treatment now available.

Pathology and bacteriology.

Another point worthy of note is the total number of examinations made of pathological specimens. Comparative figures for the seventeen years are shown in the following table :—

Year.	*From treatment centres.*	*From medical practitioners.*	*Year.*	*From treatment centres.*	*From medical practitioners.*
1917	13,988	3,649	1926	100,543	27,565
1918	25,973	6,380	1927	107,512	27,046
1919	51,554	10,464	1928	107,410	29,785
1920	58,920	14,027	1929	114,840	32,605
1921	66,134	18,472	1930	125,177	33,309
1922	74,022	19,836	1931	161,092	35,498
1923	69,784	24,403	1932	196,357	40,626
1924	79,005	24,797	1933	219,852	39,649
1925	106,064	26,346			

The increased number of specimens examined from the treatment centres is due partly to the increasing use of other tests for syphilis in addition to the Wassermann test (*e.g.*, Kahn) and to the use of the complement fixation test for gonorrhœa.

The continued use made by medical practitioners of the facilities for the examination of pathological specimens is highly satisfactory.

Under the scheme, medical practitioners who fulfil certain conditions are entitled to free supplies of the approved arsenobenzene preparations for the treatment of their private patients. The number of medical practitioners within the county availing themselves of this service is now 520, compared with 108 at the end of 1917, the first year of the operation of the scheme.

Venereal disease; hostel accommodation.

From the outset the necessity was recognised for accommodation where young women under treatment could be lodged during the period of infectivity, and where various interests and occupations could be provided. Certain hostels managed by or independently of hospitals have received grants in aid for this purpose, and experience has proved the value of these hostels for the more efficient treatment of certain cases and for preventing the spread of disease. During the year 1933, the number of patients dealt with at these institutions from the areas in the scheme was 230, the aggregate number of days in residence being 25,891. Comparative figures for 1932 were 240 and 26,416

The hostels undertaking work in connection with the scheme for the year 1933, were as follows :—

20-22, Highbury-quadrant, N. (Royal Free Hostels Committee); 148, Lambeth-road, S.E. (St. Thomas's hospital); 80, Stockwell-park-road, S.W. (Southwark Diocesan Association for Preventive and Rescue Work); 35, Parkhurst-road, N. (West London Mission); 62, Regent's-park-road, N.W. (Royal Free Hostels Committee); Salvation Army Hostels, 122–124 and 126–128, Lower Clapton-road, E.

Rescue homes.

The desirability of maintaining treatment and observation of girls and women for whom residence in hostels has been provided during the acute stages of venereal disease, engaged the attention of the Public Health Committee of the Council during the year 1928. As a result, arrangements were made with the authorities of certain rescue homes providing vocational training in domestic and other work, to receive up to eleven young women and girls who, although requiring continued treatment and observation, had been certified by the medical officer of a clinic as fit to reside in an institution without danger to other residents. These arrangements were completed in the autumn of 1928, but have not been utilised to the extent anticipated despite

several circulars to V.D. clinics and hostels. During the year 1933 only two girls availed themselves of these facilities. The total number of days in residence was 259.

The London County Council (Whitechapel) clinic.

On 1st July, 1930, the Venereal Diseases clinic at the London hospital, one of the institutions in the London and Home Counties Scheme, was taken over by the Council as an all-day clinic, and is now known as the London County Council (Whitechapel) clinic. It remains open from 8 a.m. to 9 p.m. every week-day, and provision for intermediate treatment is available also on Sundays and Bank Holidays. The premises are rented from the London hospital, but the staff is appointed and the clinic maintained entirely by the Council.

Under the directorship of Dr. T. Anwyl Davies, assisted by a loyal and efficient staff, the clinic has been an unqualified success. During the first six months the clinic was in use, 1,527 new patients and 76,183 attendances were registered, whilst for the year 1932, the number of new patients was 4,013 and the attendances totalled 228,433. The year 1933 showed a further increase, the new patients numbering 4,465 and attendances 301,398. Of the new patients during 1933, 61 per cent. of the male and 58 per cent. of the female venereal cases were infections of less than one year's duration.

The number of pathological examinations made at the clinic for the year 1933 was 82,327, an increase of 16,709 on the previous year's total. Of the 82,327 examinations,10,068 were made for private practitioners, for whose convenience arrangements are in force for results of certain tests to be communicated by telephone within three hours of the delivery of specimens.

Facilities for the study of venereal diseases are available for medical students and post-graduates, demonstrations being held weekly.

Council's tuberculosis scheme.

The arrangements in connection with the Council's tuberculosis scheme, as outlined in my Annual Report for 1932, were continued during 1933, but were modified in three respects, viz., (i) the position of the Council's general hospitals in the campaign against tuberculosis ; (ii) the appointment of the tuberculosis officers of metropolitan borough tuberculosis dispensaries as honorary tuberculosis consultants in the Council's general hospitals ; and (iii) the arrangements for giving effect to the regulations of the Council as to contributions of patients towards the cost of their treatment for tuberculosis.

With regard to the position of the general hospitals, the Council decided that, as from 1st April, 1933, all residential treatment for tuberculosis should be provided under the Council's tuberculosis scheme. This modification has facilitated improved grading of the whole of the accommodation for the treatment of tuberculosis at the disposal of the Council and the easy transfer of patients between various types of institutions according to the medical needs of the patients. Generally speaking, acute, emergency and bedridden cases and a small proportion of ambulant chronic advanced patients are retained in general hospitals in London, selected voluntary London hospitals and certain of the Council's special hospitals are used for " observation " purposes, and patients of other types are accommodated in the Council's special tuberculosis hospitals and sanatoria and in voluntary sanatoria in the country.

For the most part, voluntary hospitals and sanatoria (except Brompton hospital, in which beds are specially reserved for observation purposes) are used to supplement the Council's accommodation and to provide for the needs of patients requiring treatment in institutions under special climatic conditions, or to cater for particular types of case, such as (*a*) those desiring special religious atmosphere ; (*b*) those suitable for treatment at sanatoria attached to industrial colonies (*e.g.*, Papworth and Preston Hall) with a view to settlement in the colony ; (*c*) youths suitable for admission to Burrow Hill colony, where training in clerical or gardening work is provided ; and (*d*) chronic ambulant cases requiring only general medical supervision, who can be accommodated in institutions which provide specially for this type of case, and make correspondingly low rates of charge.

As to the second modification, tuberculosis officers have access to general hospitals, both (*a*) in the capacity of honorary tuberculosis consultants ; and (*b*) for

the purpose of seeing patients already known to them in their capacity as tuberculosis officers, whether these patients are in general hospitals to which the tuberculosis officers are attached as consultants or in other hospitals. In areas where a general hospital serves more than one borough, the tuberculosis officers concerned arrange between them a rota to serve as honorary consultants at the hospital serving their area.

Concerning arrangements for assessment, patients are assessed for contributions based on their ability to pay. Prior to 1st April, 1933, two methods of procedure were in operation according to whether the cases were classified as " tuberculosis scheme " or " municipal " (*i.e.*, general hospital) patients. In the case of the former, the assessments were made by tuberculosis care committees, subject to review by the Central Public Health Committee, while the latter were assessed by local public assistance committees. Frequently the same patient came successively within the mesh of each of the two systems. As from 1st April, 1933, instead of, as formerly, dealing with patients falling within specified medical categories under the tuberculosis scheme and treating others as " municipal " patients, it was decided that all patients should be treated under the Council's tuberculosis scheme, and that all assessments should be made by the tuberculosis care committees, subject, however, to review by the Public Assistance Committee instead of by the Central Public Health Committee.

Residential treatment.

The following table shows the development of the provision for residential treatment in London since 1914. The figures include cases dealt with by the London Insurance Committee between 1914 and May, 1921.

Beds occupied at end of year.

Year.	Adults.	Children.	Total.	Year.	Adults.	Children.	Total.
1914	722	90	812	1924	1,612	746	2,358
1915	544	241	785	1925	1,668	792	2,460
1916	481	320	801	1926	1,841	880	2,721
1917	526	375	901	1927	1,946	884	2,830
1918	816	376	1,192	1928	1,920	855	2,775
1919	1,308	557	1,865	1929	2,083	858	2,941
1920	1,636	704	2,340	1930	2,017	890	2,907
1921	1,382	669	2,051	1931†	2,255	898	3,153
1922	1,370	655	2,025	1932†	2,368	811	3,179
1923	1,458	707	2,165	1933‡	3,345	787	4,132

The following table indicates the number of applications from adults for residential treatment under the tuberculosis scheme during each of the last five years ; the increase in the figures for 1933 being principally due to the inclusion of patients formerly accounted for as " municipal " cases, treated in general hospitals.

Year.	Application for first period of treatment.			Application for further treatment.			Total applications.
	Ex-service.	Civilian male.	Female.	Ex-service.	Civilian male.	Female.	
1929	34	2,245	1,910	278	882	656	6,005
1930	19	2,331	1,814	204	943	667	5,978
1931	26	2,276	1,834	230	1,021	787	6,174
1932	18	2,191	1,811	159	1,162	779	6,120
1933	2	2,793	2,121	155	1,707	1,113	7,891

Of the 7,891 adult cases recommended during 1933 for residential treatment under the tuberculosis scheme, 98 were subsequently withdrawn, 7,567 were accepted and 226 were either admitted to the Council's general hospitals or were not accepted for residential treatment. The 7,567 cases were disposed of as follows :—(*a*) 1,595 were passed for admission to " observation " beds in order to determine " diagnosis " or " suitability for sanatorium treatment " ; (*b*) 5,972 were passed for admission

† These figures include cases classified as " municipal " cases but treated in sanatoria.
‡ These figures include cases formerly dealt with as " municipal " cases independently of the tuberculosis scheme both in sanatoria and in general hospitals.

direct to sanatoria or tuberculosis or general hospitals. Of the foregoing accepted cases, 201 for various reasons failed to enter institutions.

The subjoined statistics relate to all patients admitted to or discharged from the Council's special tuberculosis hospitals and voluntary sanatoria and institutions during the year 1933. The figures relating to patients treated in the Council's general hospitals, and therefore not dealt with throughout the year under the scheme, are contained in the report specially relating to those institutions.

During the year, 1,673 patients were discharged from "observation beds" and their classification was as follows (the corresponding figures for 1932 also being given):—

	1933.		1932.	
**Pulmonary.*	*Number.*	*Percentage.*	*Number.*	*Percentage.*
Group A	320	23·27	319	26·30
Group B1	71	5·16	61	5·03
Group B2	784	57·02	584	48·14
Group B3	200	14·55	249	20·53
Total pulmonary cases ...	1,375	100·00	1,213	100·00
Surgical cases	4		4	
Total diagnosed as tuberculous	1,379		1,217	

In the remaining 294 cases the diagnosis of tuberculosis was not confirmed. Of the 1,379 cases definitely diagnosed as tuberculous, 1,175 pulmonary cases were sent to sanatoria or tuberculosis hospitals, 13 died in the "observation" hospitals, 4 cases were transferred to surgical institutions, and 187 were discharged home or were arranged for independently of the Council's tuberculosis scheme.

The total number of admissions to institutions, exclusive of the Council's general hospitals, during 1933 was 5,130, compared with 5,289 in 1932. At the beginning of the year 2,368 patients were under treatment so that the total number of cases treated under the scheme in 1933 was 7,498, compared with 7,544 in 1932. The number of cases under treatment on 31st December, 1933, was as follows (the corresponding figures for the previous year being shown in brackets):—

	Ex-service pensioners.	*Civilian adults.*	*Total.*
Voluntary institutions	45 (50)	879 (676)	924 (726)
London County Council special hospitals	6 (10)	1,330 (1,327)	1,336 (1,337)
Total ...	51 (60)	2,209 (2,003)	2,260 (2,063)

The immediate results of the treatment of patients discharged on completion of treatment during 1933 and the two preceding years, excluding those treated in the Council's general hospitals as they were dealt with only for part of the year under the tuberculosis scheme, are indicated in the subjoined table.

The percentages given in the second line of figures under each classification group represent the percentage of the total number of cases falling within each classification group. For example, in 1933 there were 634 "A," 198 "B 1" and 2,690 "B 2" cases discharged during the year. Of these numbers, 306 or 48·3 per cent. group "A," 89 or 44·9 per cent. group "B 1" and 192 or 7·1 per cent. group "B 2" cases were discharged as quiescent, totalling 587 quiescent cases, or 13·4 per cent. of the total number (4,371) pulmonary cases discharged during 1933.

For the purpose of this table patients of 15 years of age on admission are regarded as adults, owing to the "age" division required for the purposes of

* The classification adopted is as follows:—
A.—Cases in which tubercle bacilli have not been demonstrated in the sputum.
B.—Cases in which tubercle bacilli have been demonstrated in the sputum.
B1.—Early cases.
B2.—Moderately advanced cases.
B3.—Advanced cases.

the Ministry of Health, although treatment was arranged in institutions for children.

Classification.	Immediate results of treatment.											
	Quiescent.			Not quiescent.			Died in institution.			Totals.		
	Years.			Years.			Years.			Years.		
	1931.	1932.	1933.	1931.	1932.	1933.	1931.	1932.	1933.	1931.	1932.	1933.
A. Number ...	356	338	**306**	397	326	**323**	7	12	**5**	760	676	**634**
Percentage ...	46·9	50·0	**48·3**	52·2	48·2	**50·9**	0·9	1·8	**0·8**	100	100	**100**
B1. Number ...	100	111	**89**	103	95	**108**	—	—	**1**	203	206	**198**
Percentage ...	49·3	53·9	**44·9**	50·7	46·1	**54·5**	—	—	**0·6**	100	100	**100**
B2. Number ...	162	214	**192**	1,988	2,131	**2,445**	39	46	**53**	2,189	2,391	**2,690**
Percentage ...	7·4	8·9	**7·1**	90·8	89·1	**90·9**	1·8	2·0	**2·0**	100	100	**100**
B.3 Number ...	—	—	—	834	740	**666**	267	200	**183**	1,101	940	**849**
Percentage ...	—	—	—	75·7	78·7	**78·2**	24·3	21·3	**21·8**	100	100	**100**
Total Pulmonary	618	663	**587**	3,322	3,292	**3,542**	313	258	**242**	4,253	4,213	**4,371**
Percentage ...	14·5	15·7	**13·4**	78·1	78·2	**81·1**	7 4	6·1	**5·5**	100	100	**100**
Surgical ...	93	165	**189**	300	292	**254**	13	17	**18**	406	474	**461**
Percentage ...	22·9	34·8	**41·0**	73·9	61·6	**55·1**	3·2	3·6	**3·9**	100	100	**100**
Grand Total ...	711	828	**776**	3,622	3,584	**3,796**	326	275	**260**	4,659	4,687	**4,832**
Percentage ...	15·3	17·7	**16·1**	77·7	76·4	**78·6**	7·0	5·9	**5·3**	100	100	**100**

With regard to children, the numbers recommended for treatment under the Council's tuberculosis scheme during each of the last five years were respectively 1,069 in 1929, 1,121 in 1930, 1,201 in 1931, 1,120 in 1932 and 967 in 1933. In dealing with surgical cases, arrangements have been continued for the immediate admission to residential institutions of children suffering from tuberculosis of the hip, spine and other bones.

Diagnostic observation of children.

Of the 967 children (*i.e.*, patients under 16 years of age) referred to the Council in 1933, 921 were accepted for treatment, and 46 were not accepted or were withdrawn; 62 of the accepted cases for various reasons failed to enter institutions after acceptance. There were 811 children under treatment at the beginning of the year, and 819 children were admitted during the year, making the total number of children treated in 1933 (exclusive of cases in the Council's general hospitals) 1,630, compared with 1,905 in 1932. The number of cases under treatment on 31st December,1933, was 787, distributed as follows :—

London County Council special hospitals	605
Voluntary institutions	138
London County Council general hospitals	44

As regards the children in general hospitals, with very few exceptions, such as cases in which the parents insist on the child's remaining in London, these are generally acute cases, not fit for immediate transfer to a sanatorium.

Continuing the effort not to regard " tuberculosis " as the provisional diagnosis in all cases of delicacy in childhood, the attention of the metropolitan borough medical officers of health was, during the present year, directed towards the more careful selection of cases submitted for diagnostic observation in residential institutions. Greater attention has been paid in the dispensaries to X-ray examination and to tuberculin reactions and, other than in emergencies, it has been the policy not to accept children for institutional observation unless full investigations have been carried out previously. The metropolitan borough tuberculosis officers have co-operated in this work and the result is shown as under :—

Year.	Number of diagnostic observation cases.	Number in which diagnosis of tuberculosis was confirmed.	Number in which diagnosis was not confirmed.
1932	164	17	147
1933	73	23	50

It will be seen that it has been necessary to observe in residential institutions a much smaller number of children than formerly. It is satisfactory also to note that, despite this considerable drop in the number of children observed, those actually suffering from tuberculosis would appear not to have been overlooked. Some of the children in which the diagnosis of tuberculosis was not confirmed, although discharged so far as the tuberculosis scheme is concerned, have been retained under residential treatment for further treatment of non-tuberculous chest conditions.

The condition of the children under 15 years of age (on admission) who were discharged from residential institutions in 1933 is indicated in the following table, the figures in brackets being those for 1932 :—

Immediate results of treatment.	Classification.				Surgical.	Total.
	A.	B1.	B2.	B3.		
Quiescent ...	106 (143)	6 (3)	8 (6)	— (—)	360 (387)	480 (539)
Not quiescent	40 (42)	2 (—)	18 (15)	24 (12)	67 (76)	151 (145)
Died in institution	— (2)	— (—)	5 (2)	8 (6)	15 (19)	28 (29)
Total ...	146 (187)	8 (3)	31 (23)	32 (18)	442 (482)	659 (713)

Papworth and Preston Hall village settlements.

The Council sends a number of patients to Papworth village settlement, near Cambridge, and to the Preston Hall colony, Aylesford, Kent. A careful selection is made with a view to the admission of patients most likely to be accepted later as suitable for settlement in the colony ; 27 of the Council's former patients have been accepted as permanent employees of the industrial settlement at Papworth and 34 at Preston Hall. The serious problem is the patient who, after some 12 or 18 months' treatment and training, has small prospect of entering a settlement. As both colonies are industrial concerns, it is necessary that only the most efficient should be accepted for employment. The Council has accordingly entered into arrangements with the authorities of the institutions for a reduction of the fee charged in respect of those patients who, although unlikely to be fully self-supporting, are yet able to be of some commercial value. These cases are subject to periodical review at intervals of a few months. At the end of the year 106 patients at Papworth and 85 at Preston Hall were being treated under this arrangement. The corresponding figures for 1932 were 100 and 88 respectively.

Burrow Hill colony, Frimley, Surrey.

In 1929 the Burrow Hill colony, Frimley, Surrey, which belongs to the National Association for the Prevention of Tuberculosis, was re-organised into an institution for the treatment and training in gardening or clerical work of youths between the ages of 14 and 19 years. The scheme is that youths suffering from tuberculosis who need to remain under treatment for at least a year are sent to the colony and the Council has authorised the granting of a second year of training in cases where there are definite indications that prolonged residence is likely to be of special benefit to the boys, both as regards health and fitness for employment. The course of instruction at the colony has received the approval both of the Board of Agriculture and the Board of Education. The Council maintains an average of about 40 beds. A scheme is in operation under which arrangements are made for special training in gardening of selected boys with a view to their subsequent employment in the Council's parks department as " improvers " after two years training at the colony.

This scheme contemplates that five youths will be accepted for such employment during each financial year. Four youths commenced work in the parks department under the scheme in 1931, and three more in 1932. During the year 1933 three additional youths commenced work in the Council's parks.

The lads have been kept under special observation by the chief officer of the parks department, and his reports on all the boys have been uniformly excellent and have borne testimony to the efficiency of the training at the colony. One appointment had to be terminated on account of the relapse of the patient.

Tuberculosis dispensary service.

The tuberculosis dispensary service in London, while forming an integral part of the Council's tuberculosis scheme, is provided by the metropolitan borough councils under conditions laid down by the Council.

An annual grant, based on actual expenditure approved by the Council for the year, was formerly made by the Council to the metropolitan boroughs, subject to the dispensary service being carried out to the satisfaction of the Council. The grant, as nearly as possible, represented 25 per cent. of the actual net approved expenditure after deduction of the sum paid by the exchequer to the metropolitan borough councils in compensation for loss of income arising from the withdrawal of " sanatorium benefit " for persons insured under the National Health Insurance Acts. The question of these grants was reviewed during 1933, and the Council, as from 1st April, 1933, substituted, for annual percentage grants based on actual expenditure, a system of fixed block grants in the form of annual payments of fixed amounts operating for periods of three years, based on examination of audited statements of actual expenditure during the triennium immediately preceding the commencement of each block grant period, together with a further statement of the amount of the probable expenditure by the metropolitan borough councils during the ensuing grant period, and reasons for variations from previous expenditure. This arrangement does not include the City of London, which maintains its own dispensary at St. Bartholomew's hospital.

There are now 34 dispensaries in all, including 3 branch dispensaries. Of these, 26 are *ad hoc* municipal dispensaries, and 8 (including 1 branch dispensary) are at voluntary hospitals or under voluntary management. This excludes the City of London dispensary at St. Bartholomew's hospital. In some cases a borough has two dispensaries, while in other cases a hospital dispensary serves more than one borough.

Detailed information has been furnished by the metropolitan borough councils' tuberculosis dispensary service as to the work of the tuberculosis dispensaries, including particulars as to the numbers of new cases and " contacts " examined, and the number of home visits, etc. The information is summarised in the table on pages 42 and 43.

Tuberculosis Dispensaries.—Analysis of Returns, January-December, 1933.

Metropolitan borough.	On dispensary register, 1-1-33.		Transferred during 1933 from other areas and cases returned after discharge.	Examined for first time during 1933. (a) New cases excluding contacts. (b) Contacts (printed in italics).										Total number (including contacts) under dispensary supervision during 1933.	Removed from dispensary register during 1933.		On dispensary register 31-12-33.		Total attendances.	Visits to home for dispensary purposes by		No. of specimens of sputum examined.	No. of X-Ray examinations.
				Pulmonary.		Non-pulmonary.		Diagnosis not completed.		Non-tuberculous.		Total.												
	Definitely tubercular.	Diagnosis not completed.		Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.	Adults.	Children.		(a) Recovered, (b) Non-tubercular (printed in italics,)	(a) Transferred to other areas or lost sight of (b) Died (printed in italics).	Definitely tubercular	Diagnosis not completed.		Tuberculosis officers.	Nurses or health visitors.		
Battersea ...	904	64	32	146 *1*	3	18	7 *1*	34	31 *1*	169 *87*	100 *99*	367 *88*	141 *101*	1,697	33 *591*	92 *106*	883	82	3,545	215	4,080	606	138
Bermondsey	913	16	15	129 *18*	10 *3*	13 *1*	7 *2*	19 *1*	1	215 *235*	81 *379*	376 *255*	99 *384*	2,058	59 *833*	62 *89*	894	21	4,164	1,150	3,978	1,132	691
Bethnal Green	728	5	18	81 *3*	2	11	20	18 *4*	6 *1*	216 *103*	101 *114*	326 *110*	129 *115*	1,431	8 *535*	81 *48*	744	15	4,133	90	2,657	507	227
Camberwell ...	1,650	20	51	139 *43*	6 *4*	13 *5*	13 *3*	16 *9*	3 *2*	261 *355*	123 *294*	429 *412*	145 *303*	3,010	8 *1,053*	105 *148*	1,666	30	5,288	614	8,669	1,220	432
Chelsea	312	9	35	73 *1*	2	9	5 *1*	2	3	214 *51*	125 *78*	298 *52*	135 *79*	920	22 *475*	64 *31*	325	3	2,197	56	3,433	289	361
Deptford ...	583	49	23	110 *1*	2 *3*	11	6 *1*	19 *3*	6 *9*	166 *92*	73 *104*	306 *96*	87 *117*	1,261	20 *464*	108 *73*	565	31	3,131	220	4,091	1,013	164
Finsbury ...	584	2	28	74 *6*	7 *2*	9	13	—	2	104 *54*	39 *127*	187 *60*	61 *129*	1,051	23 *343*	80 *66*	536	3	2,400	279	2,537	408	22
Fulham ...	858	9	59	165 *3*	6	13	9 *2*	—	—	258 *122*	241 *104*	436 *125*	256 *106*	1,849	51 *735*	155 *99*	809	—	4,269	409	3,066	1,121	169
Greenwich ...	*673	—	17	84 *2*	2	11	6	5	7	145 *74*	92 *98*	245 *76*	107 *98*	1,216	10 *409*	38 *76*	669	14	2,529	186	3,020	195	164
Hackney ...	1,331	13	69	174 *6*	7 *1*	21	13	21 *1*	1 *2*	349 *179*	161 *299*	565 *186*	182 *302*	2,648	28 *1,000*	152 *135*	1,317	16	6,784	229	3,453	1,122	348
Hammersmith	748	1	52	146 *9*	2 *1*	16 *1*	6 *2*	1	1	187 *159*	45 *170*	350 *169*	54 *173*	1,547	44 *562*	129 *97*	713	2	2,393	295	4,369	479	196
Hampstead ...	231	7	44	67 *1*	2	5	2	3 *2*	1	73 *28*	27 *31*	148 *31*	32 *31*	524	39 *165*	67 *20*	226	7	1,203	21	1,154	83	84
Holborn ...	219	5	9	34 *4*	—	4	3	2	—	12 *15*	11 *10*	52 *19*	14 *10*	328	4 *48*	25 *11*	238	2	981	36	1,176	140	47
Islington ...	1,349	14	99	268 *29*	10 *3*	27	25 *3*	4	2 *1*	306 *159*	65 *206*	605 *188*	102 *213*	2,570	65 *751*	273 *186*	1,287	8	7,611	391	6,733	800	439
Kensington ...	821	37	40	133 *2*	1 *3*	18	14	18	9	154 *204*	62 *209*	323 *206*	86 *212*	1,725	56 *667*	123 *110*	742	27	2,271	111	2,150	462	40
Lambeth ...	1,548	87	69	288 *20*	8 *7*	21	15 *1*	42 *25*	14 *25*	456 *313*	81 *260*	807 *358*	118 *293*	3,280	20 *1,205*	163 *192*	1,605	95	7,493	886	4,841	1,106	1,333
Lewisham ...	981	3	39	137 *4*	3 *1*	18	12	16 *4*	6 *1*	117 *64*	52 *98*	288 *72*	73 *100*	1,556	55 *354*	82 *98*	965	2	2,675	369	2,070	224	11
Paddington ...	1,056	10	25	146	4	16	26 *1*	8	12	319 *95*	343 *83*	489 *95*	385 *84*	2,144	19 *840*	109 *80*	1,075	21	8,219	553	5,430	384	212
Poplar ...	854	32	27	168 *16*	7 *2*	15 *1*	14 *1*	6 *1*	7 *6*	294 *209*	201 *251*	483 *227*	229 *260*	2,112	39 *989*	81 *119*	864	20	6,201	420	5,640	1,119	262
St. Marylebone	521	94	20	108 *3*	2 *1*	7	3	1 *2*	1 *2*	64 *49*	43 *48*	180 *54*	49 *51*	969	8 *292*	109 *30*	516	14	2,949	120	1,987	195	40
St. Pancras ...	751	63	86	187	12	17	18	11 *2*	1	139 *32*	56 *76*	354 *34*	87 *76*	1,451	25 *322*	211 *128*	719	46	3,024	81	4,287	561	85
Shoreditch ...	671	27	59	109 *6*	6 *1*	12	6 *1*	10 *4*	7 *6*	273 *130*	189 *140*	404 *140*	208 *148*	1,657	36 *762*	56 *90*	686	27	4,514	152	3,160	1,144	182
Southwark ...	697	17	39	154 *16*	12	16	17 *3*	12	7 *5*	104 *116*	20 *158*	286 *132*	56 *166*	1,393	74 *410*	156 *126*	603	24	2,810	303	3,804	494	74
Stepney ...	1,884	89	57	268 *9*	22 *2*	22 *1*	28 *4*	45 *8*	44 *15*	259 *305*	121 *350*	594 *323*	215 *371*	3,533	100 *1,100*	258 *164*	1,776	135	7,186	252	5,405	877	202
Stoke Newington	214	—	24	42 *1*	1	1	1	3	1	77 *61*	20 *40*	123 *62*	23 *40*	486	16 *199*	38 *18*	211	4	1,204	96	1,034	325	31
Wandsworth	1,391	130	94	263 *1*	7	20	21	43 *3*	1	466 *134*	230 *165*	792 *138*	259 *165*	2,969	76 *1,125*	184 *190*	1,347	47	5,324	290	3,917	1,633	108
Westminster...	655	5	12	180 *1*	9 *5*	21	25 *3*	2	—	65 *38*	31 *79*	268 *39*	65 *87*	1,131	3 *285*	125 *59*	657	2	2,165	82	3,404	164	60
Woolwich ...	954	3	11	126 *12*	8 *1*	12 *1*	12	3 *1*	— *1*	363 *160*	208 *212*	504 *174*	228 *214*	2,088	73 *963*	47 *108*	892	5	4,446	539	4,944	461	412
Total	24,081	811	1,153	3,999 *218*	163 *40*	397 *10*	347 *29*	364 *70*	174 *77*	5,825 *3,623*	2,941 *4,232*	10,585 *3,921*	3,625 *4,428*	48,604	1,014 *17,387*	3,173 *2,797*	23,530	703	111109	8,445	104459	18,344	6,534

* Figure amended by borough council since completion of return in 1932.

The following is a summary, for purposes of comparison, of certain sections of the foregoing table :—

Metropolitan borough	Number of new cases examined per 100 deaths from tuberculosis in the borough	Number of contacts examined per 100 deaths from tuberculosis in the borough	Total attendances per case on register	Tuberculosis officers' visits per case on register	Nurses' visits per case on register	Number of definitely tubercular persons on dispensary register per 100 inhabitants	X-ray examinations	
							per 100 new cases and contacts	per 100 new cases
Battersea	347	129	3·7	·2	4·2	·57	19·8	27·1
Bermondsey	402	541	4·5	1·2	4·3	·83	62·0	145·4
Bethnal Green	517	255	5·4	·1	3·5	·71	33·3	49·8
Camberwell	234	291	3·1	·36	5·1	·68	33·5	75·2
Chelsea	1,110	336	6·7	·17	10·4	·55	64·0	183·3
Deptford	378	204	5·2	·37	6·8	·55	27·0	41·7
Finsbury	295	225	4·4	·51	4·7	·80	5·0	8·8
Fulham	490	164	5·2	·5	3·7	·54	18·3	24·4
Greenwich	326	161	3·7	·27	4·4	·68	31·1	46·5
Hackney	381	249	5·1	·17	2·5	·61	28·1	46·5
Hammersmith	269	228	3·3	·41	6·1	·54	26·2	48·5
Hampstead	450	155	5·1	·09	4·9	·25	34·8	46·6
Holborn	227	100	4·1	·15	4·9	·66	49·4	71·2
Islington	223	126	5·8	·3	5·2	·41	39·6	62·0
Kensington	296	302	2·9	·14	2·8	·41	4·8	9·7
Lambeth	350	246	4·4	·52	2·8	·55	84·5	144·1
Lewisham	225	107	2·7	·38	2·1	·43	2·0	3·0
Paddington	840	172	7·5	·5	4·9	·75	20·1	24·2
Poplar	484	331	7·0	·47	6·3	·57	21·8	36·7
St. Marylebone	336	154	5·5	·22	3·7	·54	11·9	17·4
St. Pancras	226	56	3·9	·10	5·6	·37	15·4	9·2
Shoreditch	624	293	6·3	·21	4·4	·73	20·2	29·7
Southwark	177	154	4·4	·48	6·0	·36	11·5	21·6
Stepney	344	295	3·7	·13	2·7	·81	13·4	24·9
Stoke Newington	442	309	5·6	·44	4·8	·41	12·5	21·2
Wandsworth	348	100	3·8	·20	2·8	·38	7·9	10·2
Westminster	326	123	3·2	·12	5·1	·52	13·0	18·0
Woolwich	585	310	4·9	·60	5·5	·61	36·7	56·2
Average	358	210	4·6	·34	4·3	·54	28·9	43·1

Tuberculosis contact scheme.

The tuberculosis contact scheme was put into operation on 1st April, 1925, and provides :—

(*a*) for the removal of children from heavily infected and overcrowded homes occupied by a member of the family suffering from advanced tuberculosis.

(*b*) for the boarding-out of children who cannot otherwise be satisfactorily provided for while their mothers are undergoing residential treatment for tuberculosis.

With regard to (*b*), it is also found that the boarding-out of children is sometimes necessary in cases where the patient is a widower.

The scheme is carried out through the Invalid Children's Aid Association, who secure suitable homes, make all arrangements for the admission and discharge of children referred to them by the county medical officer of health, and keep them under supervision during the time they are boarded out. The Association also arrange for the homes to be periodically inspected. There is no lower age limit and young infants are sometimes sent away under the scheme, although considerable difficulty has always been experienced in finding suitable homes for infants under twelve months of age. The elder children are mainly sent to capable foster-mothers in the country. If possible, foster-mothers are selected who have some experience of nursing. The very young infants are sent to babies' hostels in London as it is found that they are readily susceptible to illness and treatment is frequently necessary.

The net cost, after deducting parents' contributions assessed on the basis of ability to pay, is borne by the Council. A grant of £300 a year is made to the Invalid Children's Aid Association to cover their administrative costs.

The scheme continued to operate satisfactorily during 1933 with the co-operation of the Association.

The applications received during 1933 were 243, and 209 children were accepted, the remaining 34 being withdrawn or unsuitable. At the end of the year 107 children were being maintained under this scheme.

The total number of children dealt with (209) compares closely with that for the previous year (211). The number still being cared for at the end of the year (107) is 14 in excess of the previous year's figure.

From the inception of the scheme until 1933, 2,065 children have been dealt with, as follows :—

Year		*Number*	*Year*		*Number*
1925	...	428	1930	...	202
1926	...	260	1931	...	196
1927	...	169	1932	...	211
1928	...	219	1933	...	209
1929	...	171			
			Total		2,065

Full details as to the operation of this scheme will be found in the Report for 1932.

Supply of surgical appliances.

Arrangements were also made through the Invalid Children's Aid Association for providing children with surgical appliances after discharge from institutional treatment, and in 64 cases apparatus was so supplied. The cost of these instruments is borne from the balance of a fund known as the " Tuberculosis Contributions Fund " into which contributions made by parents towards the cost of their children's residential treatment under the Council's tuberculosis scheme were paid prior to 1st April, 1925. Payments into this separate account are no longer made as, since 1st April, 1925, the contributions of patients towards the cost of their maintenance are paid into the County Fund. The balance of the fund is, however, being applied as indicated above.

Open-air schools.

In addition to the arrangements for residential treatment of tuberculous children, the Council has established six open-air day schools with accommodation for 568 children suffering from pulmonary tuberculosis or from tuberculous glands with no open wounds, who do not require treatment in residential institutions. The work of these schools is dealt with in the school medical officer's report (Vol. III, Part II, p. 58).

Tuberculosis care committee work.

In each metropolitan borough there is a tuberculosis care committee or other organisation appointed or provided by the metropolitan borough council for various welfare purposes, working in association with the tuberculosis dispensaries.

Tuberculosis care committees have been appointed in 24 boroughs. In the remaining 4 boroughs special arrangements are made for the functions to be discharged by officers of the borough councils working in co-operation with voluntary organisations in their area. Their work has been carried on during 1933 on the same lines as described in previous reports.

The decision referred to earlier in this report, namely, to transfer municipal patients to the committees for assessment purposes, has necessarily increased their work to a considerable extent. It has also afforded them additional opportunities for continuous supervision by enabling them to extend the resources of the care service for the benefit of patients in general hospitals as well as for those in sanatoria. It has, therefore, tended to link up the dispensaries and the general hospitals on the social service side. Tuberculosis care workers are frequently able to interview the

patients in the tuberculosis wards of the general hospitals, and to help to alleviate the sufferings of the chronic and advanced cases by supplying the small incidental needs of the patients themselves, and by keeping in sympathetic touch with their families. It is not possible to estimate statistically the valuable work performed by these committees, but there is no doubt that the scope of care work is enlarging as the cumulative effect of the years of trade depression makes itself felt.

Clothing.

The provision of clothing is an important part of the work of the care committees. In one borough it was found that 70 per cent. of the patients who entered sanatoria were in need of clothing of some kind. In most boroughs the care committee have a stock of clothing obtained from voluntary sources, which is used for patients who are not in receipt of poor-law relief. Where the family is already in receipt of relief, an application for the necessary clothing is made by the care committee to the Public Assistance Committee and arrangements have been made for these applications to be dealt with as a matter of special urgency.

Handicraft classes.

The 14 handicraft classes referred to in last year's Report have continued to do good work during the past year. In two boroughs the teacher is paid from a voluntary fund, while in the remainder the teacher is supplied by the Council. In three boroughs arrangements have been made for the room used for the handicraft class to be open throughout the week, so that patients may do their handicraft work there, or use the room as a club-room, between the classes. During the autumn of 1933, 7 exhibitions were held and a total sum of about £190 was realised by the sale of patients' work. In most cases two or more boroughs co-operated in organising the exhibition.

Besides clothing the following are among the many problems that confront the committees :—

(1) The care of patients receiving domiciliary treatment as regards bedding, appliances and nursing comforts of all sorts.

(2) Arrangements for convalescence and holidays, not only for ex-sanatorium patients themselves but for members of their families whose health and resistance may have been lowered through nursing.

(3) Assistance for the housewife and family where the patient is the principal breadwinner and for this reason often reluctant to accept treatment, and only too anxious to discontinue it at the earliest possible moment.

(4) Assistance for families where the housewife is the patient, in arranging for domestic help or the making of other adjustments.

(5) Assistance to ex-sanatorium patients in trying to find employment and in re-adjustment to normal life.

(6) Financial assistance to relatives to enable them to visit patients who are away under treatment.

(7) The supplying and arranging of occupational interests (books, knitting, embroidery, etc.) for patients who, though at home, are still unfit or otherwise unable to find work, and for bedridden cases both at home and in hospital.

(8) Assistance in securing better housing accommodation.

(9) Assistance with regard to National Health Insurance, where complications have arisen or contributions are in arrear.

All these problems and many others of a more indefinite or a more intimate nature are dealt with by care committees either directly, according to their particular resources, or through co-operation with other social agencies.

Mental Deficiency Acts, 1913–27.

Cases dealt with by the Council.

On 31st December, 1933, there were being dealt with by the Council 9,613 cases. Of these 6,073 were in institutions, 175 under guardianship, 3,352 under supervision

and 13 in places of safety awaiting action. During the year 1,094 cases were examined with the following results :—

Sex	Source of notification.	Feeble minded		Imbecile		Idiot		Morally defective		Not defective		Total	
		Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults	Children	Adults
Male	Mental hospitals department, etc.	34	32	84	5	3	—	—	—	6	9	127	46
	Special school leavers ...	226	—	—	—	—	—	—	—	—	—	226	—
	Public assistance	8	22	4	5	—	—	—	—	2	6	14	33
	Casual wards	—	4	—	—	—	—	—	—	—	42	—	46
	General hospitals	7	11	2	1	1	—	—	—	2	3	12	15
	Sections 8 & 9 of M.D. Acts	7	61	—	5	—	—	—	3	—	4	7	73
Female	Mental hospitals department, etc.	28	52	81	4	1	—	—	—	2	28	112	84
	Special school leavers ...	180	—	—	—	—	—	—	—	—	—	180	—
	Public assistance	2	34	4	2	—	—	—	—	1	13	7	49
	Casual wards	—	—	—	—	—	—	—	—	—	—	—	—
	General hospitals	5	21	3	3	2	—	—	—	—	3	10	27
	Sections 8 & 9 of M.D. Acts	1	19	—	1	—	—	—	—	—	5	1	25
		498	256	178	26	7	—	—	3	13	113	696	398
	Total	754		204		7		3		126		1,094	

During the year, sixteen visits were paid to casual wards. The total number of cases inspected was 387. Of these 46 were examined in detail, and the number deemed to be feeble-minded was 4. Casual wards.

The children of the mentally defective.

At the request of the Board of Control, an inquiry into the mentality of children, one or both of whose parents had been certified as mentally defective, was carried out in the early part of 1933. The officers concerned, Dr. A. C. Williams, Dr. J. G. Duncan and Miss M. A. Thomas, M.A., have, in this report, considered some data disclosed by the inquiry which are supplementary to the figures furnished to the Board of Control.

There were considered 398 families, in 394 of which one parent had been certified under the Mental Deficiency Acts, or the Education Act, and in four of which both parents had been certified. The grade of defect in the parents was in 395 cases feeble-minded and in 7 imbecile. The type of defect in 392 cases was primary amentia ; in 15 there was also a superadded condition such as psychosis, shell-shock or epilepsy in later life, and 10 were regarded as cases of secondary amentia (paralysis, epilepsy, meningitis or encephalitis lethargica). In many of these it is probable, however, that the original condition was primary amentia, thus nearly all the parents really belong to the sub-cultural group.

The total number of births to these parents was 944, but of the children 145 had died, 75 were under 1 year of age, 36 could not be traced, and 71 were over 16 years of age, and not available for examination. The number examined was thus reduced to 617, representing 336 families. The examinations were as complete as possible, the intelligence quotient (mental age multiplied by a hundred divided by actual age or 14) being accurately determined in 423 cases. The remaining 194 children, too young for school, were seen in their homes and an approximate mental age assigned to each. The groups were then classified according to the limits of intelligence quotient agreed upon with the committee of the Board as follows—mentally defective, below 70 ; retarded, 70 to 85 ; normal, 85 to 115 ; super-normal, above 115.

Children who showed peculiar behaviour, etc., were noted as unstable, but this group overlapped the others. The percentage distribution of the 617 children was—super-normal, 2·3 ; normal, 61·3 ; retarded, 25·9 ; and mentally defective, 10·5. The percentage noted as unstable was 4·5.

The percentage recorded as normal is perhaps rather high on account of the difficulty of exactly determining the mental grade of very young children. If these are omitted and those between the ages of 7 and 14 who were examined in detail and those already in special M.D. schools or institutions only considered, the distribution would be as follows—super-normal, 2·1 ; normal, 51·0 ; retarded, 31·0 ; and mentally defective, 15·9.

The 14 super-normal children were mostly noted by the teachers as likely to be fit for scholarships or central schools when old enough. One older girl had been found fit for a trade scholarship.

It was noted that the education level for the children of defectives was lower than their level of intelligence. In 162 children over 7 in elementary schools the reading age was above the mental age in 35, equal to the mental age in 28, below the mental age in 99.

In 30 cases the inferiority was over 2 years or more. The calculation age was above the mental age in 5, equal to the mental age in 19, and was below it in 138, in 38 cases inferiority being more than two years. This inferiority as regards reading was probably associated with the poor cultural level of the families. The reading level is better in residential schools, but not the calculation.

The poor cultural level of a child's family and associates was reflected in the result of the vocabulary test. Comparing results of this test with that of the serial intelligence tests the relations were—above mental age, 17; equal to mental age, 20; below mental age, 50.

Performance tests, which are least influenced by culture of the family, gave—above mental age, 48; equal to mental age, 40; below mental age, 18.

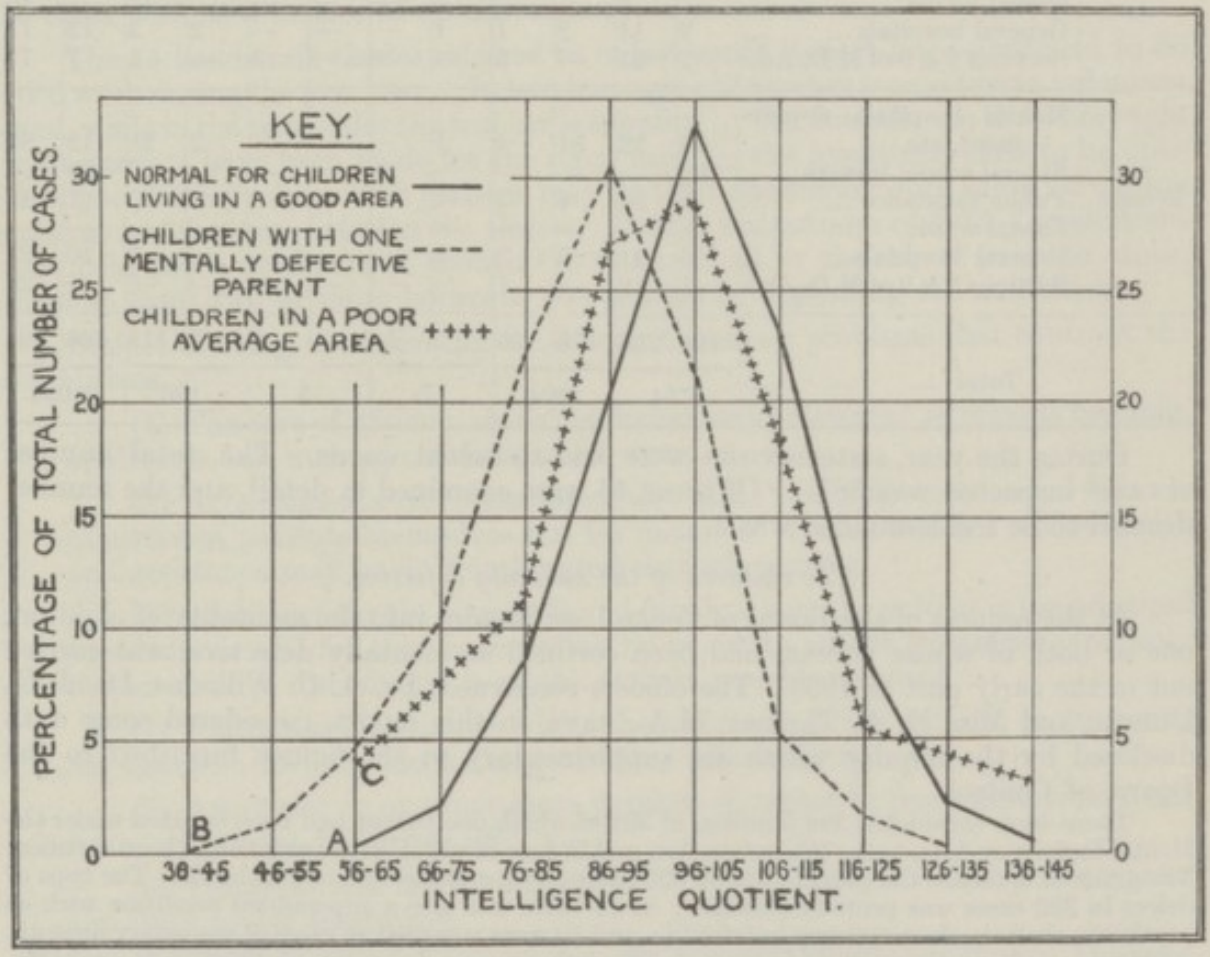


FIG 2

The distribution of intelligence in these children compared with those in an ordinary population is shown in fig. 2. Curve A from data in Terman's "Measurement of Intelligence," shows the distribution as regards intelligence in 1,000 unselected children in an area of good social status. Curve B shows the distribution in the offspring of defectives. It will be noted that the contours of the two curves bear a general resemblance, but in the case of children with a mentally defective parent (B) the maximum point (intelligence quotient 86 to 95) is removed 10 degrees below the level (96 to 105) in A, and this relation holds good for the whole of the curve. Similar curves for the distribution of intelligence in average and poor areas are not available, but curve C, based on the findings of Dr. Porteus, given in "Intelligence and Social Valuation," by Berry and Porteus, illustrates the intelligence distribution for a poor average population (in Australia), though this fails to discriminate at the ends of the scale and does not mark off the mentally defective or highly super-normal.

Professor Burt has stated that the average intelligence quotient in a "poor" school at age 7 is 87, compared with 129 for a school in a "superior" area. Comparing the diagrams it would appear that the offspring of the defectives have a distribution of intelligence much like that of children in a very poor area, and range from super-normal to imbecile, there being more sub-normal than super-normal, but not a suddenly marked out mass of mental defectives.

The percentage of defectives in the group covered by the inquiry was 10·5. In the rural areas investigated by Dr. E. O. Lewis it was 3·4, and in the urban areas 1·9.

How far the environmental conditions have an influence on the mentality is doubtful. The effect after infancy is apparently slight, for the children in residential schools are not markedly better mentally than those of their original environment, and the influence on the earlier life cannot be estimated.

It has sometimes been suggested that the mentality of the children is more affected by the mother than the father. The findings for 600 children were :—

	Super-normal.	Normal.	Retarded.	Mentally defective.	Unstable.
Father defective ... (111 children)	1·8	64·9	28·8	4·5	(8·0)
Mother defective ... (489 children)	2·3	60·9	25·2	11·5	(3·7)

There was a larger proportion of mentally defective children where the mother was defective. This fact might suggest that the very earliest environment, including the pre-natal life, is important, but there are many factors that complicate the issue. The percentage of retarded children appears to be greater in the cases where the father is defective.

The following table illustrates the influence of the other parent (*i.e.*, the mentality of the husband of a mentally defective wife, or vice versa) :—

Other parent.	Children.					
	Super-normal.	Normal.	Retarded.	Mentally defective.	Unstable.	Number examined.
I. Normal	2·3	78·1	16·0	3·6	(1·0)	219
II. Dull	1·9	56·5	31·1	10·5	(6·2)	161
III. Unstable... ...	—	65·8	24·4	9·8	(5·0)	41
IV. Mentally defective	—	47·1	29·4	23·5	—	17

Noteworthy features are :—

(*a*) The good mentality of the children one of whose parents was mentally defective and the other apparently normal.

(*b*) The markedly worse mentality when the other parent was dull or unstable.

(*c*) The large proportion of defectives born to unmarried defective mothers. It is likely that many of the fathers in this group were unstable, but their mentality is, of course, not ascertainable.

(*d*) The very small numbers in class IV, but in each of four unions of two mentally defective parents there were some normal children.

If the Mendelian law were applicable to mental deficiency as a unit recessive character this would be impossible. All the parents in class IV, except one, were simple primary aments, the exception had had encephalitis lethargica, but was probably previously defective.

The relatively low percentage of defectives and the good general level of intelligence in the offspring of the union of a defective with a normal parent support the view that it is the in-breeding within sub-normal population that is so harmful.

There has been a suggestion that dullness is an intermediate type of inheritance. This fact is not specifically shown in the findings of this inquiry, but in another group of 200 defectives the ancestry was, as far as could be discovered, as follows :—

Mental condition of ancestors of defective.	Fathers. (per cent.)	Mothers. (per cent.)	Grandparents. (per cent.)
Mentally defective ...	·0	0·5	·0
Dull	4·5	6·0	·1
Nervous and unstable ...	7·5	14·0	1·5
Psychotic	5·0	1·0	1·6
Epileptic	0·5	1·5	·1
Asthmatic...	1·5	3·0	1·8
Phthisical...	7·5	4·0	1·6
Normal	73·5	70·0	93·3

The knowledge of the ancestry in this group is certainly incomplete ; probably there were really much fewer normal and many more defective progenitors. As the Mental Deficiency Act did not operate until 1913, most of the mentally defective would pass unnoticed. It is not unlikely that many of those called dull by their relatives were really mentally defective. The interesting feature of this table is the high percentage of the various kinds of mental instability and tuberculosis.

The relative influence of dullness and instability in the parentage is illustrated by the next table, in which group A shows families where the defective parent first came to notice through lack of educability, and group B, whose social maladaptation was the main feature :—

Parents.	Children.				
	Super-normal.	Normal.	Retarded.	Mentally defective.	Unstable.
Group A (educational)	1·7	64·0	25·4	9·0	(3·3)
Group B (social)	3·9	56·2	27·0	13·0	(7·9)

There is not a great difference between the groups except that in group B, where instability was more marked than illiteracy, there appears perhaps a wider range of variation among the children than in group A. On the whole it is evident that instability is at least as important a factor as dullness.

To obtain some indication of how far intelligence as measured by tests is related to practical capacity the defective mothers were placed in two groups—those of lower grade (mental age below 9), and those of more intelligence (mental age 9 or over). A visit was paid to the homes, and many organisations to whom the defectives might be known were consulted. In this way it was possible to make a fair estimate of the comparative success or failure of their lives within the community, and as a result the two groups were allocated as efficient or inefficient housekeepers as follows :—

Mothers.		Efficient housekeepers.	Inefficient housekeepers.	Total.
	Mental age—			
A.	Under 9	12	69	81
B.	9 and over	43	37	80

Some of the satisfactory homes in group A may be ascribed to the fact, sometimes established, that, the wife being obviously incapable, the husband (not defective) has taken her place ; and some of the bad homes in group B are attributable to the fact that the defective, although of better intelligence, showed marked instability. The table illustrates a fact well-known to social workers, that defectives, especially those of low grade, will, if left to themselves, bring down the level of any environment.

A genealogical tree, fig. 3, shows the occurrence of many defectives in one family. The mental status of the early ancestry is not known, but Mr. and Mrs. L. are known to have both been dull, and Mr. V.2, who married the eldest daughter of Mr. and Mrs. L., is known to have been unstable and to have paralysis, almost certainly due to specific disease. All were slum dwellers for a long time. It will be noted that many members of the family are mentally defective, and some of those not themselves defective, gave birth to defective children. There is not, however, any regular sequence of mental defective—normal—dull—mentally defective. This family has gained some notoriety and is thought by some to be typical. In our series of families it was, however, unparalleled.

To ascertain the frequency of pockets of defectives, 294 families were analysed and divided into three groups :—

Group A—Those with three other known defectives in the immediate family ;

Group B—Those with one or two other defectives ;

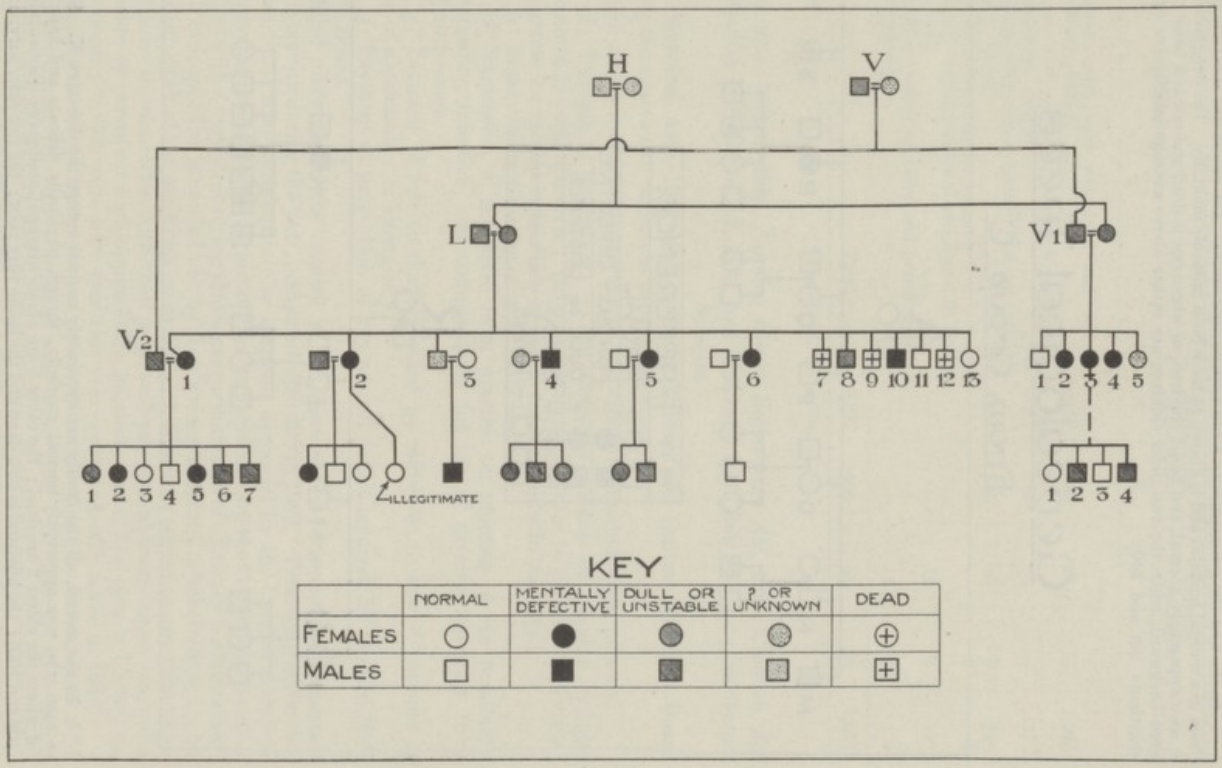
Group C—Those in which the defective was unique.

The immediate family includes parents and children of the defective, brothers and sisters, nephews and nieces. The numbers in each of the three groups were 12, 65 and 197, respectively.

The circumstances giving rise to the worse pockets are evidently of much importance. We had not the opportunity of investigating the question in detail, but our data, incomplete as they are, do suggest some likely factors. The mentality of the grandparents on one side only was known.

In group A, 16·6 per cent. of the parents of the defectives were normal, and 66 per cent. of the families were slum dwellers ; in group B, 38 per cent. of the parents were normal, and the majority had undesirable homes ; in group C, 62 per cent. of the parents were normal, while only 6 per cent. were slum dwellers.

Genealogical Tree



KEY

	NORMAL	MENTALLY DEFECTIVE	DULL OR UNSTABLE	? OR UNKNOWN	DEAD
FEMALES	○	●	◍	◌	⊕
MALES	□	■	◪	⊡	⊞

FIG 3

Two examples of pedigree, fig. 4, from group C, which is the largest one, are given below.

In the first the grandparents A are apparently normal. The eldest son M is thought to have been in a mental hospital and is known to have been unstable mentally. The defective R married a man apparently normal, and had 4 children, of whom one is dead and one is a baby not considered backward, while the two older children are rather above average intelligence (intelligence quotients 104 and 110).

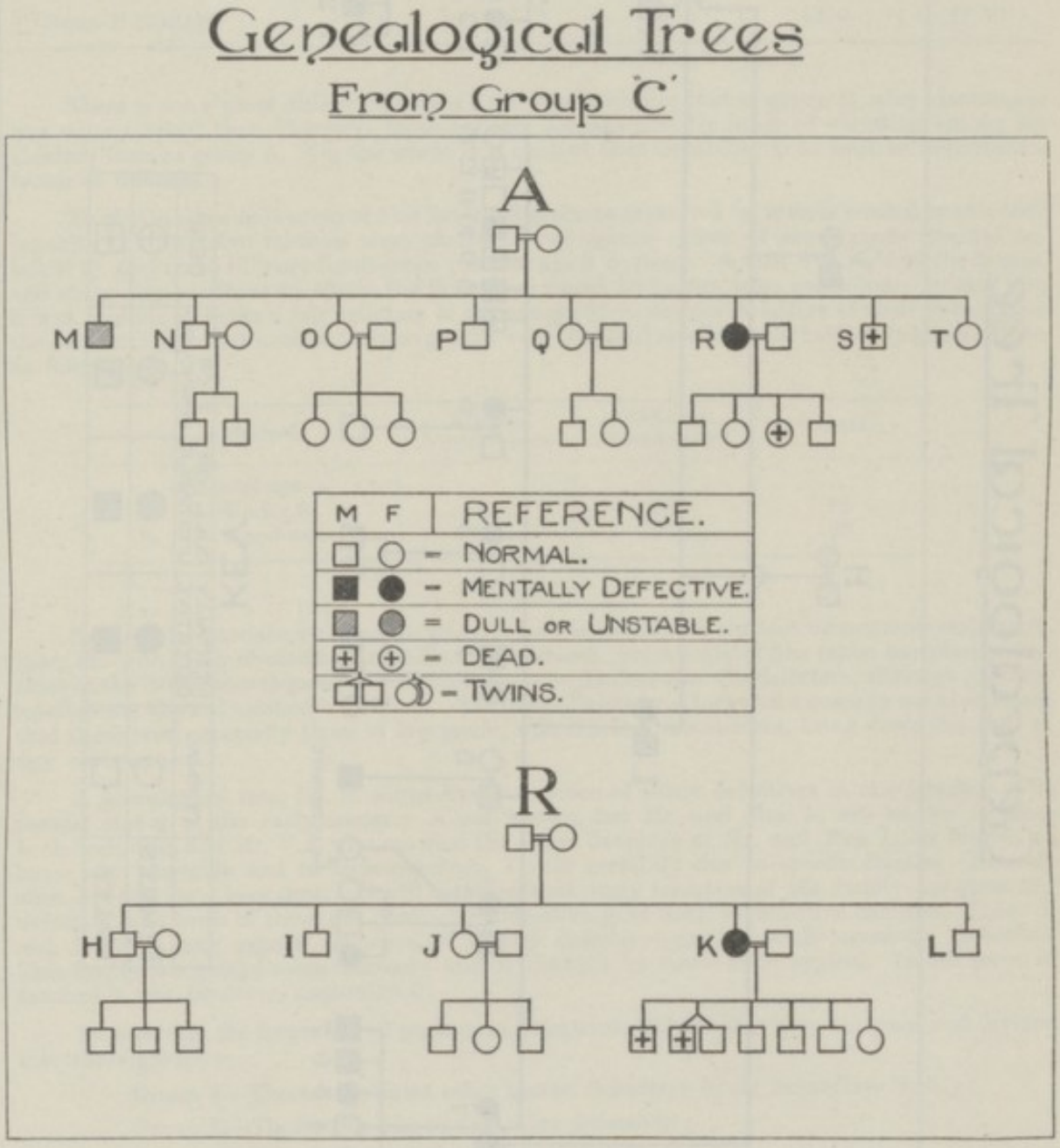


FIG 4.

In the second, all the family are apparently normal except the defective K. She married a man who was apparently normal mentally, though physically delicate and had 7 children, of whom the eldest 2 are dead; the other 5 are about average (intelligence quotients 99, 94, 110, 102 and 100); the husband is now dead and the home very poor; the two elder surviving children are in an orphanage.

Blind Persons Act, 1920.

The following table contains particulars of applicants for registration or training under the provisions of the Blind Persons Act, 1920 :— Blind persons.

Description.	Registration of the blind.		Training of the blind.		Total.
	M.	F.	M.	F.	
(1) Applicants who were examined and were certified as blind	448	539	23	15	1,025
(2) Acceptance of certificates issued by hospital and private doctors...	161	210	—	—	371
(3) Applicants who were examined and not certified as blind	110	115	16	8	249
(4) Found blind but unfit for training	—	—	—	2*	2*
(5) Previously certified as blind and found fit for training	—	—	12	5	17
(6) Previously certified as blind and found unfit for training	—	—	4	1	5
Total ...	719	864	55	29	1,667

* Included in (1) above.

Midwives Acts, 1902 *to* 1926, *Nursing Homes Registration Act*, 1927, *Children Act*, 1908, *Adoption of Children Act*, 1926, *and Maternity and Child Welfare Contribution Schemes.*

The Midwives Acts, 1902–1926, and the Rules of the Central Midwives Board regulating the practice of midwives provide for :— Midwives.

(*a*) Prevention of the practice of midwifery by unauthorised persons.

(*b*) Training of midwives. (The Council's scheme of training includes (i) lectures to pupil midwives ; (ii) post-certificate lectures to certified midwives ; (iii) grants for special instruction of midwives and midwife-teachers.)

(*c*) Supervision of the practice of midwives.

(*d*) Suspension of midwives from practice on grounds of the possibility of spreading infection, and compensation for loss of practice resulting from such suspension.

(*e*) Payment of fees to doctors called by midwives to attend patients in cases of abnormality or emergency.

(*f*) Payment of proportion of any annual deficit incurred by Central Midwives Board.

Certified midwives to the number of 854 gave notice of intention to practise within the county during the year, compared with 909 in 1932. Practising midwives, other than those who work entirely in hospitals approved by the Central Midwives Board under medical supervision, are subject to inspection by the Council's inspectors of midwives with a view to ensuring that a proper standard of efficiency is maintained. The work of inspection is carried out by four women assistant medical officers, who supervise the work of the midwives generally, give advice in regard to any difficulties that may arise in connection with their work and pay special visits where cases of a septic nature or persistent high temperature, inflammation of the eyes or blisters on the child occur ; 2,623 visits were paid this year compared with 2,398 in 1932.

Infringements of the Rules of the Central Midwives Board to the number of 51 were reported during the year, compared with 53 in 1932. Of these 36 were slight, and a verbal caution was deemed to be sufficient ; 10 cases of a more serious nature were dealt with by a written caution, and 4 midwives were interviewed and cautioned by the Committee. The case of another midwife was submitted to the Central Midwives Board, who censured the midwife. This case concerned the exhibition by the midwife of a name plate which did not comply with the rules of the Board, and which the midwife refused to remove or alter when requested by the Council.

Suspension of midwives.

The Midwives Act, 1926, requires that, in the case of midwives suspended from practice in order to prevent the spread of infection, the local supervising authority must compensate such midwife for loss of practice by the payment of such amount as is reasonable in the circumstances of the case, provided that the midwife was not herself in default; 26 midwives were suspended from practice during the year in order to prevent the spread of infection, and in 13 cases compensation was authorised.

Uncertified persons.

The Midwives and Maternity Homes Act, 1926, amended section 1 (2) of the Midwives Act, 1902, so as to make it an offence for any uncertified person to attend women in childbirth, except under the direction and personal supervision of a registered medical practitioner, unless the case was one of sudden or urgent necessity. During the year 7 enquiries were made into such cases, compared with 3 in 1932. In 2 cases a caution was administered; in 5 cases no further action was considered necessary.

Still-births.

The Births and Deaths Registration Act, 1926, requires that the birth of every still-born child shall be registered by the registrar in a register of still-births, containing the heads of information prescribed by the first schedule of the Act. During the year there were 316 still-births reported to the Council by midwives in their practice, compared with 582 in 1923, 594 in 1924, 510 in 1925, 513 in 1926, 486 in 1927, 473 in 1928, 413 in 1929, 408 in 1930, 363 in 1931, and 324 in 1932. Of the cases reported this year 165 were male and 151 female; 169 were reported as macerated, 146 not macerated, and in 1 the condition was not stated.

Puerperal fever.

During the year 259 cases of puerperal fever were investigated, compared with 219 in 1932. Of these cases 41 proved fatal, compared with 35 in 1932, a case mortality of 15·8 per cent., compared with 16·0 per cent. in 1932. In addition the Registrar-General recorded 31 deaths from puerperal sepsis, which were not certified as fever, compared with 26 the previous year. The distribution of notified cases, with the mode of delivery, was as follows, deaths being shown in brackets:—Medical practitioners 53 (7); certified midwives 68 (16); medical practitioners and certified midwives 4 (1); hospitals and poor-law institutions 93 (14); medical students 10 (0); cases of miscarriage or abortion where no attendant was engaged 31 (3).—Total, 259 (41).

Puerperal pyrexia.

In July, 1926, the Ministry of Health made regulations requiring the notification of puerperal pyrexia, which is defined by the regulations to be "any febrile condition (other than a condition which is required to be notified as puerperal fever under the Infectious Diseases (Notification) Acts) occurring in a woman within 21 days after child-birth or miscarriage in which a temperature of 100·4° Fahrenheit (38° Centigrade) or more has been sustained during a period of 24 hours or has recurred during that period."

The regulations were amended in 1928 and now require a medical practitioner to notify any such case on the approved form and transmit the notification to the medical officer of health of the district in which the patient is actually living at the time of notification. In addition any notification of a case in a London hospital must specify the place from which and the date on which the patient was brought to the hospital and must be sent to the medical officer of health of the district in which the said place is situated. The number of notifications of puerperal pyrexia investigated during 1933 was 851, compared with 783 in 1932. The cases were distributed as follows, the deaths being shown in brackets:—Medical practitioners 92 (7); certified midwives 115 (4); medical practitioners and certified midwives 5 (0); hospitals and poor-law institutions 569 (19); medical students 18 (1); cases of miscarriage or abortion where no attendant was engaged 52 (5)—Total 851 (36). Thirty-one of the cases, with 7 deaths, were subsequently notified as puerperal fever, and are therefore shown in both tables.

Medical aid.

The Rules of the Central Midwives Board indicate the emergencies for which a midwife must advise in writing that medical aid be obtained, and for which such help must be secured. A notice in the approved form is sent to the doctor, and to the Council. In the year now under review 5,405 such notices were received, compared

with 5,990 in 1932. The estimated number of confinements conducted by midwives in independent practice during the year was 20,957. This appears to indicate that medical aid was necessary in about 25·8 per cent. of the cases, compared with 22·9 per cent. during 1932.

Ophthalmia neonatorum.

In 1926, regulations came into force rendering it no longer necessary for a midwife to notify a case of ophthalmia neonatorum to the local sanitary authority, this duty being assigned to the medical practitioner only. This, however, did not relieve the midwife of the necessity of sending a copy of her medical aid notice in all such cases to the Council. The Ministry of Health issued a memorandum in connection with the regulations, suggesting that the Council should consider whether it should not refrain from exercising the power of recovery from the patient's representative of the fee paid to a medical practitioner summoned by a midwife in a case of ophthalmia neonatorum, and the Council decided that parents should not be asked to reimburse the Council for fees paid for such medical attendance on account of a baby's eye affection. The number of claims for attending cases of eye affection during the year was 629 and the amount paid to medical practitioners in respect of the cases was £624, compared with £733 in 1932.

Inflammation of the eyes—Notices.

During the year 1,052 notices were received from midwives indicating that medical aid had been summoned for inflammation of the eyes of infants, compared with 1,155 in 1932 ; 22 other cases arose in which either medical aid was not called in by the midwife or she failed to notify the Council that she had done so. Of these 1,074 cases, 270 proved to be ophthalmia neonatorum, compared with 333 in 1932 ; 260 other cases that did not occur in midwives' practices were also notified, making a grand total of 530 cases during the year, the percentage occurring in the practice of midwives being 50·9 per cent., compared with 48·8 per cent. in 1932. All the midwives' cases were investigated, and it was found that 267 were completely cured ; in 1 case blindness in one eye resulted, 1 case died, and 1 could not be traced owing to the removal of the parents. Thirty-eight cases became in-patients at St. Margaret's hospital, compared with 36 during 1932.

Pemphigus neonatorum.

During the year 37 cases of pemphigus neonatorum occurred in the practice of midwives, compared with 59 during the previous year.

Instruction of midwives.

As in past years, courses of demonstrations and lectures at convenient centres were provided for the post graduate instruction of midwives practising in London, Middlesex, Ealing, Edmonton, Tottenham and Willesden, the cost being shared by the local supervising authorities in proportion to the numbers of their midwives attending.

In April, 1930, the Central Midwives Board suggested that lectures to pupil midwives on the Rules of the Central Midwives Board and the relationship of the midwife to the various health authorities should be given by the medical officer of health of the local supervising authority.

The Board approved the arrangements made by the Council for providing, at suitable intervals, a course of two lectures by two of the Council's medical officers particularly associated with the supervision of midwives. This course of lectures is provided four times a year for the instruction of pupils before each examination of the Central Midwives Board for candidates for admission to the Midwives Roll. Pupil midwives in training at the Council's hospitals and other institutions in London are admitted to the courses, which are held in the conference hall at the County Hall. A certificate of the attendance of a pupil at the course is signed by the Council's medical officer and furnished to the Central Midwives Board. Pupils attending during the year 1933 numbered 701, compared with 770 in 1932.

Maternal mortality.

The arrangement made at the suggestion of the Ministry of Health whereby confidential reports are made on maternal deaths by medical officers of the Council and are exchanged with the metropolitan borough medical officers of health as described in the Annual Report for 1929, was continued during the year.

Payment of medical fees.

The Midwives Act, 1918, imposed upon the Council the duty of paying fees to medical practitioners called in by midwives in cases of emergency. The patient is required to reimburse the Council according to her means. The Minister of Health has laid down a scale of fees to which local authorities must adhere.

Claims accepted during the year numbered 3,172, compared with 3,528 in 1932, the total amount involved being £3,729, compared with £4,077 17s. in 1932. The Midwives Act, 1926, fixed a limit of time, namely, two months from the date of the first visit, within which a medical practitioner must submit his claim. In pursuance of this provision, 36 claims amounting to £38 16s. 6d. were refused during 1933.

Registration of nursing homes.

The Nursing Homes Registration Act, 1927, came into operation on 1st July, 1928, and repealed Part II of the Midwives and Maternity Homes Act, 1926, and also so much of any local acts as provided for the registration of maternity homes. The Annual Report for 1928 (Vol. III, pp. 53–54) indicates fully the powers of the Council under the Act.

A nursing home is defined as " any premises used or intended to be used for the reception of, and the providing of nursing for, persons suffering from any sickness, injury or infirmity and includes a maternity home." The definition of a maternity home is " any premises used or intended to be used for the reception of pregnant women or of women immediately after childbirth." Consequently such premises require registration as a maternity home even though the women go to some other place for the actual confinement.

The number of nursing homes on the register on 1st January, 1933, was 240. During the year 1933, 20 homes were added, of which 2 had applied during 1932, and 35 were removed on cancellation of the registration, leaving 225 on the register on 31st December, 1933. With one exception cancellations were made at the request of the persons registered and/or upon change of ownership. In respect of one nursing home the registration of the two keepers was cancelled by order of the Council on the ground that the keepers were not fit persons to carry on a nursing home.

During the year the keeper of a nursing home was prosecuted for infringements of the Council's by-laws in respect of the keeping of registers and receipt books. Fines amounting to £10 were imposed, together with the payment of £5 5s. 0d. costs.

There were 29 applications for registration during the year, of which, at the end of the year, 9 had been withdrawn and 18 granted, 2 being still under consideration.

The general considerations taken into account by the Council in administering the Act are fully described in the Annual Report for 1930 (Vol. III, Part I, pp. 53-54).

In 1933 the Council granted 112 exemptions from the provisions of the Nursing Homes Registration Act, 1927, in respect of premises not conducted for profit. These exemptions were for a period due to expire on 30th June, 1934, after which date the exemption may be renewed at the discretion of the Council from year to year.

The homes have on the whole been satisfactorily conducted. Improvement in the cleanliness, general orderliness and in the staff of homes has continued. Owing, however, to financial stringency there is still a tendency to delay necessary re-decoration, and in several cases the attention of keepers has been directed to this matter with satisfactory results.

A number of the older homes have closed or have changed ownership. Upon change of ownership the new owners were required to fulfil the requirements for a " new " home.

Maternity and child-welfare work by voluntary associations.

The Maternity and Child Welfare Contributions (London) Scheme which was made by the Minister of Health under section 101 (6) of the Local Government Act, 1929, and continued in force from 1st April, 1930, to 31st March, 1933, subject to alterations made by the Minister of Health under section 131 (2) of that Act, fixed the amounts of the grants to be paid by the Council to 54 maternity and child-welfare associations. Similar grants are payable by the various metropolitan

borough councils to other child-welfare associations in their boroughs. The money for these grants is contained in block grants payable by the Ministry of Health to the councils concerned.

The Maternity and Child Welfare Contributions (London) Schemes, 1930 and 1932, made by the Minister, covered the grant period which expired on 31st March, 1933. During the year 1933, the authorities of three mother and baby homes named in the above schemes decided to discontinue their work because the continuance of the homes was not justified by the number of applicants, or for financial reasons.

The Maternity and Child Welfare Contributions (London) Scheme, 1933, for the four years from 1st April, 1933 to 31st March, 1937, came into operation on 1st April, 1933. The Scheme (1933) provides for payment by the Council of grants amounting to £31,177 in each of the financial years 1933–34, 1934–35, 1935–36, 1936–37, to fifty voluntary associations, including two baby homes which did not participate in previous schemes. The grants are payable on the conditions (*inter alia*) :—

(i) That the Council is satisfied as to the efficiency of the maternity and child-welfare service provided by the association in respect of which the contribution is payable, and that such service is being used by a reasonable number of those persons for whom it is provided ;

(ii) That no reduction or alteration of such service is made without the consent of the Council.

It is necessary therefore that these associations should be inspected from time to time by the Council's officers. This work is performed by the medical staff engaged on work under the Nursing Homes Registration Act, while occasionally it also involves the employment of a sanitary inspector, who is detailed by the chief inspector from amongst his staff.

Children Act, 1908, Part 1. —Transfer of powers to metropolitan borough councils.

In the Annual Report for 1932 (Vol. III, Part I, page 46) reference is made to the amendments of Part 1 of the Children Act, 1908 (Infant Life Protection) which are contained in the Children and Young Persons Act, 1932, and which came into force on 1st January, 1933.

By the Transfer of Powers (London) Order, 1933, the Minister of Health transferred the functions of the " local authority " under Part I of the Children Act, 1908, as amended, from the Council to the metropolitan borough councils ; the appointed day of the transfer of the functions was 1st April, 1933.

At the end of March, 1933, there were 2,374 nurse-children kept in 1,576 homes compared with 2,152 and 1,541 respectively at the end of 1932.

The following statement relates to the period 1st January to 31st March, 1933— 4 nurse-infants died ; there were 2 inquests (no blame attached to foster-mothers) ; and there were 3 prosecutions for failure to notify reception of nurse-infant. No order was made for removal of a nurse-infant to a place of safety.

Adoption of Children Act, 1926.

Applications (under the Adoption of Children Act, 1926) by foster-parents to adopt notified nurse-infants numbered 13. The Courts granted 11 adoption orders, and adjourned 1 application *sine die* ; 1 application was withdrawn.

The Council acts as guardian *ad litem* of children who are the subjects of applications for adoption orders in London and continues to deal with those applications which concern foster-children who are now under the supervision of the metropolitan borough councils. As from 1st April, 1933, however, the responsibility for this work has been transferred to the education officer.

Examination of Staff.

During the year 8,569 examinations, including 326 home visits, were made of members of the staff. These may be classified as follows :—

Entrants	1,450
Sickness cases	6,440*
Casualties, illness, etc., at County Hall	679

* 1,255 of these were dealt with in the first instance by telephone and correspondence.

As a result of the examinations, 403 officers were deemed to be permanently unfit to carry out their ordinary duties in the service of the Council on the following grounds :—

	Males.	*Females.*	*Total.*
Cardio-vascular disease	66	30	96
Diseases of the bones and joints ...	17	32	49
Disability following trauma	5	3	8
Pulmonary tuberculosis	23	13	36
Diseases of the lungs other than pulmonary tuberculosis	23	15	38
Malignant disease	7	4	11
Gastro-intestinal disorders	8	2	10
Renal disease	2	3	5
Functional nervous disorders	30	25	55
Organic nervous disorders	18	8	26
Senile decay	6	9	15
Post-operative disability	7	7	14
Sight and hearing defects	15	7	22
Endocrine disorders	5	3	8
*Miscellaneous	2	8	10
Total ...	234	169	403

* Including cases of varicose veins (4), hernia (2), general debility (2), pyrexia (1), mental subnormality (1).

Sixty-nine of the 1,450 applicants for appointment to the permanent service failed to pass the medical examination for the following reasons :—

	Males.	*Females.*	*Total.*
Defective hearing and ear diseases ...	1	5	6
Defective vision and eye diseases ...	11	9	20
Poor physique and deformities	2	5	7
Cardio-vascular disease	4	8	12
Varicose veins	1	3	4
Rheumatism	1	3	4
Kidney disease, albuminuria, &c. ...	2	—	2
Tuberculosis and lung diseases	1	6	7
Functional nervous disorders	1	1	2
*Miscellaneous	1	4	5
Total ...	25	44	69

* Including one case each of hernia, epilepsy, enlarged thyroid, sinusitis, and mental defect.

Work done in the bacteriological laboratory at County Hall.

The investigations carried out during the year 1932–33 are summarised below under the various headings. The work undertaken in this laboratory is chiefly associated with the control of infectious diseases in the Council's day and residential schools, and in addition a certain amount of bacteriological investigation is carried out on material such as water, milk, etc., submitted to the Council's chemist for analysis.

Diphtheria Carrier investigation (see also Annual Report Vol. III, Pt. II, page 47).—5,273 specimens were examined, of which 327 yielded positive morphological K.L.B.; of 653 cultures submitted to animal test, 300 were virulent, 31 avirulent and 322 negative.

Ringworm and Favus.—744 specimens of hair of the head were examined. Ringworm fungus was identified in 231 (171 small spore, 60 large spore). Favus was identified in one specimen.

Hæmolytic streptococcus carriers.—(*a*) puerperal fever contacts—22 specimens were examined (2 positive, 20 negative).

(*b*) presumed contacts of scarlet fever—4 specimens were examined (all negative).

Sputum examinations.—63 specimens were examined, tubercle bacilli being found in 25.

Urine (for presence of albumen).—10 specimens were examined, 5 were abnormal, showing the presence of albumen, and of these one also contained B. coli and one tubercle bacillus.

Miscellaneous.—29 specimens were examined for gonococci (6 positive); 2 cerebro-spinal fluids examined (both normal); a number of specimens examined for presence of pus, etc.

Water (*a*) from Council's institutions, schools, etc.—280 samples were examined, in 48 of these coliform organisms were found in minimum amounts of water, ranging from 1/10 to 10 c.c.

(*b*) from swimming baths—3 samples examined with fairly good results.

Milk.—50 samples of milk supplied to schools and institutions were examined; 15 were found to be unsatisfactory, and of these 9 were stated to have been pasteurised.

Work of the Chemical Branch.

The work of the chemical branch is carried out at three laboratories, *viz.*, the central laboratory at County Hall, the laboratories at the northern and southern outfalls. The Greenwich power station laboratory was transferred to the London Transport Board on 1st July, 1933.

Central laboratory.

The greater part of the work done at the central laboratory consists of the examination of materials of all kinds bought by or used for the Council, and of water, air, foods, materials which have failed in use, and other matters arising out of the Council's undertakings. A considerable number of samples have been examined in connection with the Petroleum Acts and the Fertilizers and Feeding Stuffs Act, 1926.

Examination of samples.

An important part of the work of the branch consists of the consideration of and giving advice on matters involving scientific questions.

The total number of samples examined in 1933 amounted to 9,637. The following table shows their classification :—

Air (from tunnels)			287
„ (carbon-monoxide pollution)			36
Asphalt			25
Building materials			85
Coal, coke and ash			41
Cement			318
Disinfectants and insecticides			55
Driers			37
Drugs and medical stores			824
Dust (atmospheric pollution)			74
Fertilisers and feeding stuffs			282
Floor oils and polishes			30
Foods, Groceries—			
Bacon		48	
Baking and egg powders		44	
Cakes, biscuits, bread		73	
Cereals		13	
Cheese		50	
Cocoa		27	
Flavouring essences		28	
Fish		100	
Flour		53	
Margarine		95	
Meat extracts		65	
Miscellaneous foodstuffs		60	
Mustard		12	
Pickles		11	
Preserved meats		53	
Sugar		88	
Syrup and treacle		30	
Vinegar		39	
Yeast		29	
		—	918
Gas—			
Dry cleaners	22		
Flue	3		25
Greases			14
Hospital equipment			30
Ink			25
Metals—			
Solder	16		
Various	33		49
Milk, condensed			10
„ schools and institutions			312
„ (cream)			3
„ foods			3
Oils—			
Fuel	5		
Lighting	24		
Lubricating	149		
Painting	66		262
Miscellaneous	18		
Oilman's sundries			22
Paints, stains			691
Petroleum (Petroleum Acts, 1928)			88
Rainwater, etc. (atmospheric pollution)			108
Sewage			24
Soap and soap powders			98
Sulphur determinations (air)			1,668
Tobacco			11
Turpentine			43
Urine			1,494
Varnish			83
Water, boilers			749
„ river			386
„ drinking (from wells)			229
„ and deposit (in leakage)			54
„ various			19
Miscellaneous			125

Various materials and apparatus for special purposes sent for examination during the year included—

(1) *Gas alarm lamps*, for use in the sewers, for the detection of explosive gas or deoxygenated air. Lamps and apparatus of various designs were examined, including (*a*) special types of safety lamps made to give a warning by showing, through the operation of a bimetallic spring acting upon an electric switch, a red light when there is an appreciable amount of inflammable gas in the air; and (*b*) apparatus for showing the actual amount of these gases present. These were both found to be very reliable and should be most useful in discovering a dangerous condition of the sewer air.

(2) *Wood, composite boards, metal sheets, etc.*, used as building materials, were tested for fire resistance in accordance with the British standard me hod and for thermal conductivity.

(3) *Aluminium hot-water bottles*, used in hospitals, were on occasions found to become badly corroded under certain conditions. The cause for this was ascertained and instructions given for treatment to prevent or reduce corrosion, such treatment consisting of adding about ½ oz. of potassium bichromate to 100 gallons of the water used in filling the bottles.

(4) *Aluminium food containers*, for use in hospital wards, were examined as to thermal conductivity and rate of cooling, as it was alleged that the food did not remain hot sufficiently long when brought to the wards in these containers. After making tests it was decided that a great improvement in the heat retaining properties of these containers could be effected by the insertion of a non-conducting material to break the continuity of the metal between the inner and outer lining of the container, and this was recommended.

(5) *Incrustation in boiler pipes*, from a boiler used for the heating installation at a school. The incrustation had the appearance of foundry sand, but was found to be almost entirely calcium compounds from the water, indicating that there was a large amount of make-up water used, due either to leakage or to a large use of the water for purposes other than heating.

(6) *Collapse of ceiling.*—An investigation as to the cause of the serious collapse of a ceiling was made. The ceiling was suspended from the beams of a reinforced concrete floor by means of galvanised staples driven into a patent composition which formed the lower surface of the beam. It was found that the patent composition was one of the well-known class of materials composed of a sawdust-Portland-cement concrete, containing a hygroscopic chloride, part of which was easily soluble in water. The steel member of the concrete beams, the staples and the expanded metal of the ceiling were all found to be corroded badly as a result of contact with the saline constituent present in the composition, and the complete rusting of the staples, especially at the pointed ends, rendered them incapable of supporting the weight of the ceiling.

Compositions of this character are used to a considerable extent, but should be employed only in dry places, and never in contact with metal.

Milk samples.

The total number of milk samples examined during the year in the laboratory at County Hall was 312. Of this number 198 were of milk supplied to children in the elementary and residential schools, whilst 114 were from supplies to general, special and mental hospitals and public assistance institutions, under contracts which require a minimum of 3·25 per cent. of fat and 8·5 per cent. of other solids, except during the months of March and April, when the fat must not be less than 3 per cent. The quality of the supplies generally, has been more satisfactory than in recent years, only 4 samples (slightly over 1 per cent.) being deficient in fat.

One sample was found on analysis to give results showing the addition of water, notwithstanding the presence of the full amount of non-fatty solids required by the contract.

The condition of the supplies in respect of extraneous matter was again less satisfactory, for of the 312 samples examined 27 (about 9 per cent.) were found to contain an excessive amount.

In addition to the above, 47 samples of milk supplied to schools and general, special and mental hospitals were examined bacteriologically at the bacteriological laboratory at the County Hall. The results obtained are shown in the tables set out below.

The milk supplied to schools (other than open-air schools) and mental hospitals is not purchased under any of the standards specified in the Milk (Special Designations) Order, 1923, and a standard was adopted for what would be regarded as ordinary clean milk. The standard was : bacterial content, not more than 300,000 per c.c., and B. coli not to be present in 1/1,000 c.c. If below this standard, the chief officer of supplies was informed that the milk could not be regarded as satisfactory.

The contracts for the supply of milk to general and special hospitals and open-air schools provide for the supply of pasteurised milk, which is required under the provisions of the Milk (Special Designations) Order, 1923, to conform to the following standard : the milk must not contain more than 100,000 organisms per c.c.

As in the case of raw milk for school supplies, the requirement as to the absence of B. coli in 1/1,000 c.c. was adopted.

The results of bacteriological examinations were as follows :—

Raw Milk.

School supplies.		
Conforming to standard		16
Not conforming to standard—		
B. coli present in 1/1,000 c.c.	4	
Bacterial count exceeding 300,000 per c.c., but conforming to *B. coli* standard	1	
Bacterial count exceeding 300,000 per c.c., together with excess of *B. coli*	3	
		8
Samples examined		24
Mental hospitals—		
Conforming to standard		1
Not conforming to standard—		
Bacterial count exceeding 300,000 per c.c. but conforming to *B. coli* standard		1
Samples examined		2

Pasteurised Milk.

Hospital supplies—		
Conforming to standard		17
Not conforming to standard—		
B. coli present in 1/1,000 c.c.	3	
Bacterial count exceeding 100,000 per c.c. but conforming to *B. coli* standard	2	
Bacterial count exceeding 100,000 per c.c., together with excess of *B. coli*	2	
		7
Samples examined		24

In all these cases of defective supplies the attention of the chief officer of supplies was called to the matter, and in the more serious cases the medical officer of health of the district was also informed.

The arrangement made for the co-operation of the medical officers of health in regard to the examinations of milk supplied to Council's institutions and schools in the county and in certain areas outside the county has been continued during the year with very satisfactory results.

Under this arrangement it has been possible to reduce the number of samples examined at the central laboratory from 1,784 in 1931 to 312 in 1933. Some of the boroughs have been unable to undertake the bacteriological work, and it has not been possible to arrange a scheme of co-operation with the local medical officer of health in respect of certain of the out-county institutions.

Under the scheme reports have been received on the chemical examinations of 1,090 samples of supplies to Council's institutions and schools, of which number 24 were deficient in butter-fat.

In addition to the above, results have been received of the bacteriological examinations of 209 samples of pasteurised milk, of which 9 failed to comply with the requirements of the Milk (Special Designations) Order, 1923, and of 119 samples of raw milk, 23 of which fell below the adopted standards.

Drugs.

Of the 824 samples of drugs and medical supplies examined during the year, 63 (or 7·6 per cent.) were found to be either definitely unsatisfactory for use or below standard strength or quality.

Satisfactory		761
Unsatisfactory or below standard—		
Deficient in active constituent	25	
Tincture, etc., deficient in alcohol	8	
Specific impurities found	5	
Dirty	5	
General deficiency	17	
Misdescribed	3	
		63
Total		824

These figures show a small improvement compared with the previous year, when 9·6 per cent. of the samples analysed were either unsatisfactory or below standard. Although deficiencies have in the majority of cases been comparatively small, it is essential that supplies of drugs and medical stores should be kept strictly up to the required standard.

Fertilisers and feeding stuffs.

In connection with the provisions of the Fertilisers and Feeding Stuffs Act, 1926, 282 samples have been examined during the year under the supervision of the chemist, who is the official agricultural analyst for those parts of the county which do not come within the purview of the City Corporation or Port Sanitary Authority. The results of the analyses were :

Samples of feeding stuffs.

Complied with guarantee		135
Deficient		43
Constituents in excess of guarantee		34
Guarantee incorrect in form or no guarantee		13
Total		225

Samples of fertilisers.

Complied with guarantee		21
Deficient		5
Constituents in excess of guarantee		22
Guarantee incorrect in form or no guarantee		9
Total		57

Compared with the figures for last year there is a considerable improvement in the number of samples of feeding stuffs which complied with the guarantee, although the number showing a deficiency remains almost the same. The Fertiliser and Feeding Stuffs Regulations, 1932, which amended those issued in 1928 have been in force throughout the year; one outstanding feature has been the number (17) of samples, described as meat meal or meat and bone meal, which have been found to contain less than the minimum amounts of albuminoids (protein), required by these regulations, and which do not, therefore, legally, come under these descriptions.

Two samples, one of meat meal and one of meat and bone meal, were adversely reported on as containing wood fibre, probably sawdust; while two samples of meat and bone meal had more than the legal maximum (4 per cent.) of salt. One sample submitted as sulphate of ammonia was found to consist entirely of impure potassium chloride. A French gluten feed contained 11 per cent. mineral matter, mainly calcium phosphate, and was excessively acid, and a sample of linseed meal, although

consisting entirely of linseed, had fermented to such an extent as to render it too acid to be suitable for feeding purposes. The necessity for active inspection and sampling under the Act is clearly proved by the results of the past years' examinations, which continue to show inexpertness in making the statutory statement or guarantee.

Drinking water supply.

The quality of the drinking water at those institutions of the Council which derive their supplies from private wells has been systematically watched; 229 samples having been examined chemically and 281 bacteriologically from thirty-five institutions. Chlorinating plants had already been installed at nine of these places as the result of tests carried out in the past; during the present year, in consequence of the slight intermittent pollution which has been proved to occur there, the installation of a treatment plant at another private well has been authorised. In six institutions, as a result of the analysis of samples of water, recommendations were made for a thorough cleaning out of the tanks; after this treatment the quality of the water was satisfactory. An interesting case of drinking water pollution occurred in connection with a fountain supply in one of the Council's parks. Investigation indicated that the trouble was probably due to the proximity of a length of unused main and the presence of iron bacteria. Treatment of the main with bleaching powder solution was recommended.

Swimming baths and lakes.

Reference has been made in several previous reports to investigations conducted on the waters of the bathing lakes and open-air swimming baths in the Council's parks. The condition of water in swimming pools throughout the country has received much attention in the daily press during last summer and a general account of what has been done in connection with the Council's own baths is of interest.

As early as 1911, Dr. J. G. Forbes made a bacteriological investigation of the water and of the residue left after the water was run off, in a small bath at the Council's industrial school in Goldsmith-street, Drury-lane.

That investigation formed the subject of a paper read before a meeting of the Medical Officers of Schools' Association in February, 1912. The results of examinations of the water at a temperature of 70°F. undertaken between the end of October and middle of December, 1911, yielded a count of approximately 4,000 organisms per cubic centimetre, with evidence of the presence of skin contaminations, e.g., *staphylococcus aureus* and *epidermidis albus* and *proteus*, of organisms present in normal saliva, *streptococcus salivarius*, *staphylococcus aureus* and *micrococcus catarrhalis*. Faecal contaminations, however, largely predominated in members of the proteus group, *B. coli communis*, *B. pyocyaneus* and *streptococus faecalis*.

Such contaminations afforded suggestive indication of very probable pollution by pathogenic organisms and the possible conveyance of infection by the coccal group resulting in inflammatory conditions (1) of the nasal and aural passages, particularly otitis media, with its attendant risk of meningitis (2) of the eyes with conjunctivitis, outbreaks of which have been from time to time attributed to swimming bath infection.

There is also the risk afforded by expectorated mucus containing tubercle bacilli as well as pneumococci viable at temperatures of 65° or 70°F., also by faecal pollution from typhoid or dysentery carriers (possibilities perhaps remote, but demanding consideration with a view to their prevention), in addition to those risks associated with imperfectly cleansed or sterilised towels or bathing suits, likely to lead to spread of skin infections such as epidermo phytosis or cutaneous ringworm (a condition far commoner than is generally recognised) especially affecting the toes.

From time to time chemical examinations of water in bathing lakes were made at the request of the chief officer of the parks department, and, in 1924, by which time swimming had greatly increased in popularity, systematic investigations were commenced.

These showed that although some of the conditions which gave rise to complaints, (e.g., the development of green growths of confervoid algae in the water), led to purification, yet the conditions in both lakes and baths which were used by abnormally large numbers of bathers were such that natural processes of purification were inadequate to maintain the water in fair condition. One cause of this was the fact that the mixed animal and vegetable communities arising as the result of natural inoculation

were unbalanced, only low forms of animal life (eggs, larvae and nymphae of midges, water beetles, which had flown from dried-up ponds, and occasional batrachians) and of vegetable life (confervoid algae) reaching the Metropolitan Water Board water, with which these, mostly concrete lined, baths and lakes were filled. The absence of fish, snails and higher marine plants allowed the flora and fauna dispersed throughout the water as plankton to increase without limit.

One effect of the planktonic and microscopical nature of the flora was that in the abstraction of carbon dioxide from the calcium bicarbonate, which forms most of the "hardness"-producing matter in the London water, in accordance with the well known equation of photosynthesis $nCa(HCO_3)_2$ + light + chlorophyll $\rightarrow (CH_2O)n + nCaCO_3$, the cells of the organisms (usually protococcus) took up the carbohydrate which they had formed and multiplied rapidly whilst insoluble carbonate of lime separated, the turbidity of the water increasing, and a mud of calcium carbonate and dead cells sank to the bottom, or, during swimming hours, was dispersed as a greenish grey mud throughout the water. This mud formed a favourable habitat not only for protozoa but for "red worms," the larvae of midges (chironomus), developed from jelly-like masses of eggs laid by the insects at the water's edge. These larvae feed on the mud at the bottom, coming to the more highly aerated upper layers of water from time to time to breathe. The surfaces of the bathers' bodies, and possibly other excretions than sweat, furnished sufficient nitrogen and salts for both the organisms mentioned and a rich bacterial flora to flourish. It should, however, be stated that there is some evidence that after a time bacteria decrease in numbers owing either to the activity of protozoa or of bacteriophage or both these agencies.

It was sought to remedy this state of affairs by the use of copper sulphate to kill green growths, and of bleaching powder to sterilise the water, besides allowing a considerable volume of water to flow through the bath or pond.

These attempts met with only partial success. Green growths seem to become immune to copper salts, which also tend to separate from solution if the water is alkaline, which it must be if there is much vegetation or if bleaching powder is added to it. Bleaching powder produces a deposit, and, apart from bacterial contamination which is kept under by this reagent, the turbidity of the water is a great source of danger.

Consider a bath newly filled with water to which appropriate proportions of copper sulphate and bleaching powder have been added and which is bright and clear. Some hundreds of bathers use it daily, many of whom are not clean—having come direct from work or school. Some may have washed their feet in a perfunctory way in the foot baths which are usually provided, but in most cases they introduce an appreciable amount of pollution. In my report of 1927 (p. 49) I stated that "it was sought to ascertain the average contamination introduced by a bather by comparative analyses before and after use of the water of a small swimming bath at a school. Having regard to the respective weights and surfaces of the children using the bath and of adults, it would appear that a not very clean adult would contribute while in the bath about 0·8 gramme (say 12 grains) of nitrogen in all forms and 1·4 grammes of chlorions. It is probable that the preliminary use of a shower bath and other precautions would reduce this amount appreciably."

Since treatment of water in the baths was found ineffective, the Parks Committee fitted two baths with plant for filtration and chlorination. In these the water can be withdrawn continuously, as desired, from the bath by pumping from an outlet at the bottom of the deep end, treated with coagulants (aluminium sulphate and an alkali) filtered through sand, and all insoluble pollution having thus been removed, treated with chlorine either as gas or in bleaching powder and returned by a cascade, where it is aerated, to the shallow end of the bath.

The results obtained in these baths and in others which were subsequently fitted with filtration plant have been extremely satisfactory. After a very short period the attendants were able to work and control the plant satisfactorily, and the water, even when the number of bathers has been very great, has been kept sufficiently clear for articles lying on the bottom and sides at the deep end to be visible. Very little trouble has been experienced with green growths, although in some cases in high summer a slight growth on the bottom has shown that the chlorinated water

entering the bath tends to pass through it along the shortest path from inlet to outlet. This has been prevented by providing multiple inlets. Growths and deposits of eggs of midges on the walls of the baths have given very little trouble, and the surface of the water has been free from the empty nymph cases, from which midges had emerged, which are a marked disfigurement of non-filtering baths in the open air.

The increased clarity of the water is not only of aesthetic value, it prevents the possibility of bathers who have become unconscious or injured while in the water, or who have sunk, escaping attention and drowning, as has happened in swimming baths. This is an important matter in any bath, but more especially so in baths as much used as those in the Council's parks are, especially in hot weather and school holidays.

The soluble impurities entering the water are obviously not removed by filtration, but their amount cannot be increased by auto-digestion of those which are insoluble, and they are probably changed chemically by the absorption of chlorine. In any case their chief interest in non-filtering baths is as indicators of matter carrying bacteria and as food for other organisms. These, with some possible exceptions, cannot live in water which is effectively chlorinated.

During the spring and summer months of 1927 and 1928, bacteriological examinations were made of 122 samples from 15 swimming baths and pools to determine the bacterial content per cubic centimetre and the presence of pollution by organisms of the bacillus coli group in 10 c.c. or less amounts of the water.

The swimming baths dealt with were at that time classified thus :—

Number of baths.	Number of examinations made.	Bacterial content per c.c.			B. coli. present in
		Average.	Highest.	Lowest.	
	Untreated by chlorination or filtration—				
Open-air—					
11	84	1,360	64,000	4	$\frac{1}{10}$ c.c. in 17 samples. 1 c.c. in 33 ,, 5 c.c. in 18 ,, 10 c.c. in 5 ,, Absent in 10 c.c. in 11 samples.
Covered—					
1 (before use)	3	95	165	5	1 c.c. in 1 sample. 10 c.c. in 1 ,, Absent in 10 c.c. in 1 sample.
1 (after use)	3	65,000	80,000	5,000	1 c.c. in 3 samples.
	Supplied with filtration plants—				
Open-air—					
2	19	13	55	0	5 c.c. in 2 samples. 10 c.c. in 2 ,, Absent in 10 c.c. in 15 samples.
Covered—					
1	13	18	60	0	5 c.c. in 1 sample. Absent in 10 c.c. in 12 samples.

It would therefore appear that the effect of the filtration plants might be considered as having reduced the bacterial content to 1/100th of that obtaining in the untreated open-air baths; and, whereas in the latter 87 per cent. of the samples showed B. coli pollution in amounts of water ranging from1/10 c.c. to 10 c.c., in the baths fitted with filtration plants only 15 per cent. of the samples showed B. coli pollution in amounts of 5 c.c. or 10 c.c. of the water.

The content of free chlorine in the water is as far as possible maintained at from 0·2 to 0·5 part per million. As much as 0·8 per million was found by Dr. J. A. Glover, of the Ministry of Health, and the chemist to cause no irritation of the eyes

and nasal passages and the smell of chlorine is not unpleasant in such dilution. The attendants at the baths are supplied with simple test sets by which they can see that the chlorine in the water is kept within the desired limits.

The arrangement of the surroundings of the baths is mostly not of modern type. The dressing accommodation should not allow clothed persons, more especially those wearing shoes, to walk on the decks or gangways around the baths, bathers should have to pass by lavatory accommodation including shower baths, and through a long footbath of chlorinated water to reach the bath. A passage with continuous showers and a trough floor would be the best means of access. It must, however, be remembered that, except on certain days, no charge is made for the use of those baths. The numbers using them are so great as to be controllable only with difficulty and the only other means of obtaining free swimming is by illicit bathing in the Thames or Lea, neither of which rivers is, in the metropolitan district, fit for bathing.

Outfalls.

Daily analyses of sewage and effluent showed that the dry weather had no great effect on the concentration of sewage received at the outfalls.

The dry matter in individual cargoes of sludge sent to sea from the northern outfall varied from 3 per cent. to 14 per cent., the average being 9·2 per cent., rather better than last year. At the southern outfall the average dry matter was 7·4 per cent. with variations from 2 per cent. to 13 per cent. In both cases the dry matter in the greater number of cargoes did not diverge greatly from the average.

River Thames.

The phenomenally dry summer which was not followed by winter rains led to a very much decreased fresh water flow of the Thames, and it became necessary to resort to chemical treatment of effluent at both outfalls.

The tidal waters both above and for some distance below the county of London were found in the course of systematic chemical examination to be in a less satisfactory condition than usual.

Experiments at Crossness on the anaerobic digestion of sludge, and at Barking on biological treatment of sewage have been continued, and are yielding results which are likely to lead to marked improvements in treatment.

Vehicular tunnels.

The systematic examination of the air in the vehicular tunnels at Blackwall and Rotherhithe, which was commenced in 1929, was continued throughout the year, attention again being concentrated on the morning busy period, practically all samples having been taken about 10.30 a.m. The following table summarises the results obtained :—

Period.	Carbon-monoxide.			Fog shade.			
	No. of samples.	Average CO content, parts per 100,000.	No. of results above limit.*	No. of samples.	Average fog shade.	No. of results above limit.†	Comparable open-air average.
BLACKWALL TUNNEL— *Period* 1933—							
1st January—31st March ...	25	12·4	3	7	6·1	4	2·6
1st April—30th June ...	26	11·2	1	6	4·6	0	1·3
1st July—30th September	26	16·0	8	7	3·8	1	1·1
1st October—31st December	23	12·2	0	5	6·0	2	2·9
Whole year—1933	100	13·0	12	25	5·1	7	1·9
Whole year—1932	103	11·1	9	25	4·5	4	—
ROTHERHITHE TUNNEL ... *Period*—1933—							
1st January—31st March ...	26	10·5	1	6	6·6	2	2·4
1st April—30th June ...	26	10·5	0	7	4·2	0	1·2
1st July—30th September	26	10·1	2	6	3·8	0	1·3
1st October—31st December	26	10·5	2	7	6·7	4	3·1
Whole year—1933	104	10·4	5	26	5·3	6	2·0
Whole year—1932	102	10·9	10	25	6·1	12	—

* Limit for carbon-monoxide : 20 parts per 100,000.
† Limit for fog shade : 6 (i.e., 1·92 milligrammes black suspended matter per cubic metre of air).

There was for the year 1933 another increase in the average carbon-monoxide content of the air samples taken in Blackwall tunnel, the difference being particularly marked in the summer quarter, during which eight of the twenty-six samples exceeded the maximum figure desired, due to some extent to the unusual weather, but also to the increasing amount of motor traffic passing through both tunnels in the last few years, the census showing in both cases nearly 100 per cent. more in 1933 than 1928. The ventilation plant at Blackwall tunnel has in the main kept the air in a satisfactory state during 1933, but on some occasions during the summer its capacity was somewhat overtaxed. In the Rotherhithe tunnel the conditions have been more satisfactory and the figures for 1933 were very similar to those of 1932.

Carbon-monoxide in fire stations.

It is the practice to run engines of motor vehicles for short periods at intervals throughout the night and day in order to keep them warm and ready to go to a fire without delay ; it is necessary, particularly on cold nights, to do this with the doors closed and consequently very little ventilation. During the past year chemical investigations made at a number of fire stations showed a greater concentration of carbon-monoxide in the air of the appliance rooms than is desirable, with some percolation of the polluted air into adjoining rooms. Two different types of apparatus for passing fumes from the exhaust pipes of the engines directly to the open air, which had been fitted at stations, were found to be very satisfactory ; the carbon-monoxide in the air in the appliance room immediately behind the engines after five minutes running only reaching 2 parts per 100,000 and 7 parts per 100,000 for the two types at the different stations. Although conditions varied greatly at different stations it was recommended that exhaust gas extraction apparatus should be installed at all stations. Actually, however, it is understood that the chief officer of the fire brigade is taking steps to achieve the same results by other means.

Atmospheric pollution.

The results of observations made in connection with the general scheme of investigation of atmospheric pollution carried out at stations in various parts of Great Britain and others made solely for local purposes enable some general picture to be formed of the incidence of pollution in the air of London. In considering such results, however, it must be remembered that the air over a region is not stationary, and that there are innumerable small, and several large, sources of pollution, the significance of which at the very few places where observations can be made is constantly varying owing both to changes of the seasons and the force and direction of winds.

Certain general conclusions can nevertheless be drawn :—

(1) Determination of sulphur gases, of the reaction (alkaline or acid) of rain-water and of pure water exposed to the air all show that the air of London is, on the whole, more acid in winter than in summer.

(2) Observations of acidity and of the action of air and rain on bright copper surfaces show similar seasonal variations pointing to more pollution in winter than in summer, and to more in London itself than in outer London.

(3) Observations with Owen's air filter show that the air of London, or at least at places where this instrument has been installed, contains more soot in winter than in summer.

Visibility.

Observations of horizontal visibility in all directions from the flèche of County Hall showed that the average visibility was higher in 1933 than the average of the six preceding years in most months (fig. 5). The visibility in 16 directions averaged around alternate points of the compass (true north bearings) is shown in fig. 6 for each month of 1933.

The higher ranges of vision in all months except those of winter when visibility is low in all directions are as in previous years centred on the south, and the eastern quadrants as heretofore gives the poorest results. Observations at places east of the Nore light vessel from the decks of sludge vessels confirm the view previously expressed that the low winter visibility from the London station must be associated with urban conditions and not with the river valley ; that is, it is associated rather with atmospheric pollution caused by the greater use of fuel for house, office and factory warming, and is not due to purely meteorological factors.

Although these observations refer to horizontal directions they undoubtedly indicate a real loss of light at 100 feet above ground level or thereabouts due to smoke and fog in the colder and damper months of the year.

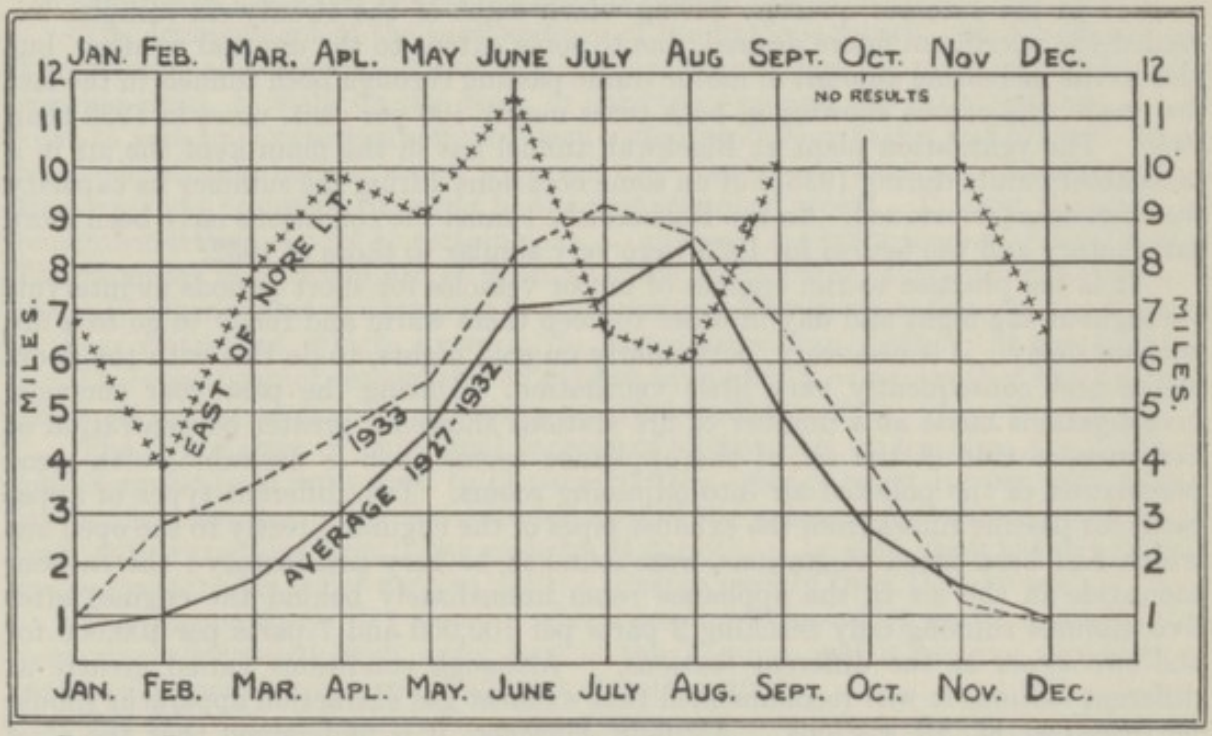


FIG. 5.—Diagram showing the mean (in miles) of the greatest distance at which objects could be distinguished at mid-day from the flèche at County Hall, during 1933 and 1927-32; also observations taken from the sludge vessel at places east of the Nore light vessel during 1933.

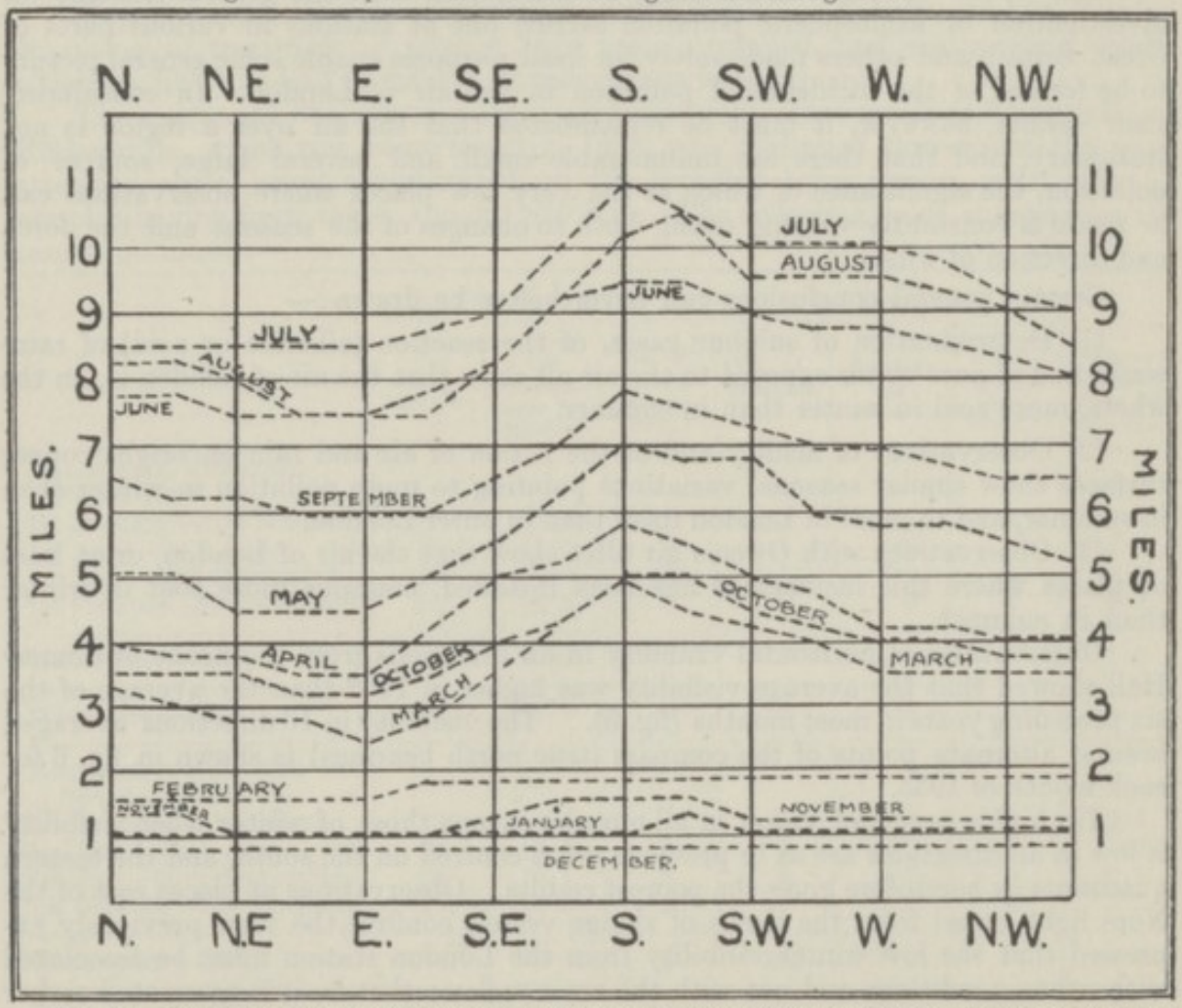


FIG. 6.—Diagrams showing the mean (in miles) of the greatest distance in the directions stated at which objects could be distinguished at mid-day from the flèche at County Hall during the months of 1933.

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London County Council

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Vol. III (Part II)

PUBLIC HEALTH

(Report for the year 1933 of the School Medical Officer)

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ANNUAL REPORT OF THE COUNCIL, 1933

VOL. III (Part II)

REPORT OF THE SCHOOL MEDICAL OFFICER FOR THE YEAR 1933.

By Sir Frederick Menzies, K.B.E., M.D., LL.D., F.R.C.P., F.R.S.E., County Medical Officer of Health and School Medical Officer.

Introduction.

During the year 1933, economic difficulties still continued and unemployment though somewhat less prevalent than in 1932, was still rife. There was considerable apprehension lest the health and physique of the children should suffer. Special steps were taken to ascertain the facts and to endeavour to ameliorate, so far as powers are given under the Education Act, the lot of those subjected to adverse economic conditions.

In this connection reference may be made to the special reports on nutrition which appear on pages 12 and 90. More children are receiving school meals and the whole of the official staff together with the voluntary care workers have been on the *qui vive*. With regard to routine inspections the number reported to be below average nutrition was 4·7 per cent. the lowest ever recorded in London, but as evidence of the great care taken lest any child should suffer, it may be mentioned that a larger proportion than in the previous year, namely 1·0 per cent. of the total inspected compared with 0·91 per cent. were marked for " treatment " so that every possible step within the resources of the school medical service might be taken to help those in need of attention.

While in dealing with such a serious matter as the nutritional condition of the London school child, there is no place for unbalanced optimism, yet it is fair to say that, on the best evidence available, the great increase in the number of ill-nourished children which might reasonably have been expected has not occurred, and the school " social " services have apparently been able to cope successfully with one of the most trying episodes which they have yet had to face.

One word of warning is, however, necessary. Great national disturbances have effects which are both immediate and remote. The remote effects of the Great War on children born during that period are referred to in this report (see p. 19). Similarly, though the immediate effects of the prolonged depression appear from a consideration of the massed statistics to be surprisingly satisfactory in comparison with what might have been expected, yet there may have been some undermining of the health of the children which will show itself in insidious ways in the future.

Judged, however, by the ordinary standards the results of the years' work are good. The percentage of children referred by the school doctors at routine inspections for treatment for any defect other than dental declined from 17·5 per cent. in 1932 to 16·3 per cent., and of those recommended for treatment the largest proportion yet recorded, namely 82·2 per cent. were regarded at the re-inspection as " cured," or as having had defects remedied.

The numbers of children suffering from otorrhoea, defective vision and anaemia all showed a decrease. More spectacles were obtained; the references to the National Society for the Prevention of Cruelty to Children were fewer. Indeed with one exception, namely in dental cases, there was an increased desire to pay heed to the advice of the school doctor. Despite years of intensive educational effort to induce parents and children to accept dental treatment, there were still nearly 40 per cent. who declined to make use of the facilities offered. What further steps can be taken to deal with this regrettable state of affairs is a matter for the earnest consideration of all concerned in the health of the rising and future generations.

900. (M&C. 14696—6.) 15.6.34.

With regard to infectious diseases, scarlet fever was very prevalent—more so than in any year since 1921. The incidence of smallpox was fortunately smaller and the disease was still of the mild type.

It is difficult in a report from which all minor matters have been excluded to pick out for special mention the salient features. Apart from those referred to above the most important would, however, appear to be :—

(i) Medical inspection rooms (p. 8).

(ii) Alteration in the age groups to be subjected to routine inspection (p. 10).

(iii) Standard dietary for the residential schools (p 68).

(iv) Report on mental conditions of the offspring of known mentally defectives (p. 79).

(v) Diphtheria immunisation in the residential schools (p. 55).

The report is rather longer than that of last year, not only because of the special reports which it has been necessary to include, but also because an endeavour has been made to deal with all the points on which the Board of Education in their circular containing " Suggestions for the arrangement of Annual Reports by School Medical Officers " have expressed a desire for information.

In closing this introductory statement it is my melancholy duty to refer to the deaths of two of the divisional medical officers, Dr. E. E. Argles and Dr. F. C. Lewis, who were in charge of the south-western and northern divisions respectively. Both supplemented their official work by taking an active part in voluntary efforts to promote the welfare of the children in their divisions, and they are sorely missed, not only by their colleagues, but by wide circles of social workers.

Staff.

The public health department is organised in three branches, (i) special hospitals including control of the acute infectious diseases and of the ambulance service ; (ii) general hospitals and district medical work transferred from the late London poor-law guardians ; and (iii) general public health administration including housing and the school medical service. A principal medical officer is in charge of each of the three branches, viz. (i) special hospitals, etc., Dr. J. A. H. Brincker ; (ii) general hospitals and public assistance medical administration, etc., Dr. W. Brander ; and (iii) general public health administration, Dr. W. A. Daley. With the exception of the administrative work in connection with infectious disease in schools which is directed by Dr. Brincker, assisted by a principal assistant medical officer (Dr. J. G. Forbes), the work of the school medical service falls entirely in the branch directed by Dr. Daley and is organised in two main sections.

One of these sections, of which the senior medical officer in charge is Dr. C. J. Thomas, embraces the medical inspection of school children, the medical and dental treatment and cleansing of school children, open-air schools and general school hygiene. For purposes of routine medical inspection, etc., London is divided into five divisions, north-west (divisional medical officer, Dr. A. W. Sikes) ; north (divisional medical officer, temporary rank, Dr. Margaret C. Hogarth) ; north-east (divisional medical officer, Dr. G. Chaikin) ; south-east (divisional medical officer, Dr. H. R. Kidner) ; south-west (divisional medical officer, Dr. E. J. Boome). The remaining staff in this branch of the school medical work includes one principal assistant medical officer for aural work (Mr. A. G. Wells) ; nine part-time assistant aurists ; one part-time consulting dental surgeon (Mr. B. Samuel) ; one part-time principal assistant medical officer (Dr. Barbara Tchaykovsky) ; one divisional medical officer for ophthalmic work, nursery schools, etc. (Dr. Elizabeth M. McVail) ; *21 whole-time assistant medical officers ; 8 assistant medical officers giving six sessions a week ; 50 assistant medical officers giving three sessions a week ; additional temporary medical assistance for 117 sessions a week ; 9 medical officers (part-time) at open-air schools ; 273 doctors, surgeons and anæsthetists at treatment centres ; and 97 dentists at treatment centres, of whom 68 are employed as inspecting dentists in the schools.

* Two vacancies—also one and a half medical officers temporarily seconded for work under the Mental Deficiency Acts (equivalent substitutes authorised).

The temporary medical assistance additional to fixed staff was reduced during the year by fifteen sessions a week, the reason for this being the reduction of the number of children of school age in the county area.

The other section concerned with the school medical service (Dr. F. C. Shrubsall, senior medical officer) includes the medical examination at the County Hall of scholarship candidates, school teachers, etc., and the medical work in special and approved (reformatory) schools. Dr. Shrubsall also deals with the work under the Mental Deficiency Acts, the Blind Persons Act, and the medical examination of the Council's staff. In this section are included the services of a part-time consulting surgeon for orthopædics (Mr. K. J. Acton Davis); a part-time ophthalmic consultant (Mr. N. Bishop Harman); two divisional medical officers (Drs. A. C. Williams and Jessie G. Duncan) and an assistant medical officer who is attached to Ponton-road remand home. The duties of consulting surgeon for aural disease are, in this branch, rendered by Mr. A. G. Wells.

The duties of Miss D. E. Bannon, matron-in-chief in the public health department, include the superintendence of the school nursing staff in addition to the supervision and organisation of the nursing and certain other staff at the hospitals and institutions transferred under the Local Government Act, 1929. The school nursing service comprises at present five assistant superintendents, 74 nursing sisters and 296 nurses.

Co-ordination.

Whilst the school medical service is directed by the Council as local education authority, and the Council is also the hospital and institutional authority for London, much of the general health and sanitary work is carried out by the 29 metropolitan borough councils who are the local sanitary authorities.

Work under the Maternity and Child Welfare Act is, in London, part of the duties of the metropolitan borough councils. A change in the responsible authority therefore occurs in the supervision of the child's health at the moment he or she enters upon school life.

This is bridged so far as is possible by mutual co-operation. There is a system of transfer of records from the maternity and child welfare departments of the borough councils to the school medical officer on the entry of the children to school. Particulars of the conditions found at medical inspection in the schools are forwarded annually to borough medical officers of health. The tuberculosis dispensaries are managed by the borough councils, but a system of exchange of information between the divisional medical officers in the school medical service and the local tuberculosis officers has been established, and, in general, child contacts of tuberculosis of school age are notified by the tuberculosis officers and supervised in school, where their weights are regularly ascertained by the school nurses. Only on the supervention of symptoms are they referred back to the tuberculosis dispensaries. The local tuberculosis officers also act as the school doctors in charge of the open-air schools for the tuberculous in those boroughs in which such schools have been established by the Council.

Daily consultation with the borough health departments is maintained in regard to infectious diseases, and during the year an important new principle was established whereby, with the consent of the Board of Education, the Schick-testing and immunisation clinics of the local sanitary authorities have been placed on all fours with the Council's school treatment centres, and are recognised for the purpose of recording the attendances of school children during school hours, so that their "marks" are not lost in school.

In one respect there is overlapping with certain of the local health authorities. This occurs where there have been established municipal dental clinics which have been thrown open to school children as well as to other members of the population. Parents may take their children to the municipal clinics which are apart from the system of regular continual oversight of dental inspection at school and treatment at the school treatment centres provided by the education authority.

The transfer of the former poor-law hospitals, infirmaries, convalescent homes and other institutions to the Council, and the appropriation of many of these under the Local Government Act, 1929, has greatly enlarged the facilities for dealing with ailing school children; and a system, which has been established of notification from the hospitals to the school medical officer of the treatment and discharge of child patients, has given fuller opportunities for perfecting that care of the child population which is the duty of the school medical service. Amongst the major benefits which have been obtained from this great reform may be mentioned the greatly extended provision of beds for children suffering from rheumatism, the availability of convalescent provision for school children generally, and the aid given by the general hospitals in dealing with throat operations by which the formerly increasing arrears have been completely overtaken. Still another benefit is the notification from the fever hospitals of children suffering from discharging ears. This renders supervision more thorough and often leads to the prevention of recurrence, or even of eventual deafness.

Contact is maintained between the Council's care committee or social service system and all the voluntary agencies in London, including the great number of voluntary hospitals, general and special, with which the county abounds. In a large and increasing number of instances there is very close co-operation so that these agencies work, not in isolation, but as part of a comprehensive unity of children's care. Some of these arrangements are referred to in a later section of this report.

School hygiene.

Continued progress has been made with the Council's programme in connection with the "40 and 48" scheme, which is now almost complete. In December, 1933, 98·1 per cent. of classrooms were on the "40 and 48" basis as compared with 97·7 per cent. in March, 1933, and 57 per cent. in April, 1924. Ninety-five per cent. of school departments are now entirely upon the "40 and 48" basis.

The reorganisation of schools in connection with the Hadow plan, which has been in flood tide, and the reduction in the numbers of younger children, have given many opportunities of effecting improvements.

The Council has considered the results of experiments carried out at seven schools, of providing linoleum, with cork sheet underline, on concrete in lieu of boarding for the floors of babies' rooms. The experiments have proved satisfactory, and, as there is no material difference in cost, it has been decided that this type of flooring to babies' rooms shall be provided in new schools.

Trough closet replacements.

Many of the older schools still possess antiquated sanitary conveniences. These are being gradually dealt with and provision is being made for the replacement of trough closets by pedestal pans at six schools during the summer holidays, 1934.

Three of these schools have senior girls' departments, one has elder children in its girls' department, and the remainder are in populous districts.

Medical inspection rooms.

Considerable progress has been made in the task of providing schools with medical inspection rooms. The occurence of empty class rooms due to the fall in the younger child population has made this increasingly possible.

The provision made for medical inspection came up for review as the result of a motion in the Council and I was instructed to report: (i) whether the equipment provided in medical inspection rooms is adequate, (ii) whether the time allowed for the medical inspection of the children is sufficient, and (iii) whether the inspections are sufficiently frequent.

In the earlier days of medical inspection no provision was made for special rooms adapted to medical inspection. This was carried out as best could be arranged in unused classrooms, classrooms cleared for the occasion, screened-off portions of school halls, teachers' rooms voluntarily surrendered for the occasion and sometimes in corridors. In some voluntary schools, no space could be provided and a neighbouring church hall or other room was engaged.

Article 7 of the Code provides that the authority must have reasonable facilities for medical inspection, and Circular 792 (1911) requires that in

every case where medical inspection is carried out other than upon school premises, the consent of the Board of Education must be obtained. The Council on 29th July, 1919, agreed to a regulation that a medical inspection room should normally be provided in all new, remodelled and enlarged elementary schools. Since that date the provision of medical inspection rooms has steadily been made, and at the present time between one fifth and one quarter of the elementary schools have been provided with medical inspection rooms.

The Council, in 1929, decided, that in all new, remodelled and enlarged schools a hot-water installation in medical inspection rooms should be provided and that a hot water supply should be installed in existing medical inspection rooms in the Council's elementary schools.

Owing to the requirement that a medical inspection room should be 20 feet long in one direction, the earlier rooms provided proved to be inconvenient owing to their narrow width in comparison with their length. In 1931 this disadvantage was discussed with officers of the Board of Education, and, as the result, the medical inspection rooms designed since that date have been of a more suitable and convenient shape. Consideration is always given in planning to the proximity of the room to a suitable waiting space for parents. Difficulties in regard to suitable rooms for medical inspection still chiefly arise in connection with non-provided schools.

A survey has been made of vacant classrooms in Council and non-provided schools and a report submitted as to the possibility of using spare rooms as medical inspection rooms at all schools not provided with such rooms, including information as to whether a hot-water supply can be made easily available for the use of the school doctors.

The following is the result of this survey :

Council schools.—There are at present 621 elementary, including central, schools in the county, and 129 or 20·6 per cent. of these schools are provided with properly equipped medical inspection rooms. The accommodation position in the remaining schools has been reviewed, and the head teachers and the district inspectors have been consulted with a view to the allocation of a room for medical inspection in schools where this appears to be practicable. As a result of the enquiries made, it appears that in 112 Council schools there are vacant classrooms which could be converted into medical inspection rooms without difficulty, while in 11 further schools disused staff or stock rooms could be used. Some of these schools are lighted by electricity ; gas is also available in the room in some cases.

Where schools are lighted by gas, which obtains in most cases, it would be possible to adapt one of the existing gas points for the supply of hot water, but heating where electricity only is available might be more difficult.

Non-provided schools.—There are at present 363 non-provided schools within the county and 19 of these schools or 5·2 per cent. are already provided with medical inspection rooms. The managers of 67 schools, where it appeared from the rolls that there were surplus classrooms, were asked if arrangements could be made for the allocation of a room for medical inspections. From the replies it is found that in 19 schools the managers are prepared to allocate a room for medical inspection, but difficulties may arise in a few of these cases as the managers may require to use the rooms for their ordinary parochial activities out of school hours. No definite replies have been received from the managers of 4 schools where the question is still under consideration. No action has been taken in cases where the roll is less than 100 as the cost of the special equipment of a room in such circumstances would not appear to be justified in view of the small numbers involved.

There are, therefore, 142 rooms now available if desired for equipment as medical inspection rooms. This number may be increased somewhat on the receipt of later information, and having regard to the general tendency of rolls to fall, further rooms may become available in due course.

The standard equipment approved for medical inspection rooms comprises :— Weighing machine, reclining chair, table, cupboards, rug, mirror, portable lavatory where fixed wash basin is not provided, measuring rod, American arm-chair, curtains

Equipment.

for windows where not frosted, hinged wall lamp, six Windsor chairs, tablecloth, fender and fireirons, umbrella stand, curtains for screening.

The reclining chair was intended for use for the occasional examination of children in the recumbent position, but, owing to its low height, it is not very convenient and it was decided that a suitable table with two blankets should be provided for the purpose.

Instruments for clinical use.

For examination of the throat the difficulties of the use of metal spatulæ and the time wasted in disinfection between the examination of one child and the next soon became apparent and the officer in charge of medical inspection in London struck the happy idea of utilising for the purpose gardeners' wooden labels which could be thrown away after use. This solved all the difficulties and the practice quickly spread so that it is now customary all over the country to use wooden spatulæ which are made for the purpose. Such spatulæ are always, of course, available at medical inspections. Children do not object to them, as they are familiar objects, but the sight of a metal spatula will upset many children.

The school nurses who attend all inspections carry bags which contain :—drill overall, thermometer, enamel bowl, magnifying glass, two steel combs, forceps, lysol bottle, various sized envelopes, pocket diary, solid methylated spirit, culture tubes, memoranda block, all medical inspection forms, notebook, wooden spatulæ. The weight of this bag with its normal contents is 10 lbs.

The school doctor invariably brings his stethoscope and any other instruments he finds it advantageous to use. An electric torch is generally included in his equipment.

Frequency of examination.

The Education Act provides that local education authorities must make provision for the medical examination of children at entrance to school, and at such other times as the Board of Education prescribes. The Board has prescribed a routine age examination at the ages of 8 and 12. This minimum examination has been provided by all education authorities. London, provides in addition (with the consent of the Board) a further age group examination in the term before that in which the children leave elementary schools. The Board also directs that provision must be made for re-inspection of children found defective, and for special inspection of individual children at any age when the need is indicated.

In London 42 per cent. of the average number of children in attendance are subjected each year to a routine inspection. Children referred for special examination by school teachers, care committee workers, divisional officers, etc., are equivalent to two further age groups. To these must be added the children who had previously been found defective and who were kept under observation by the school medical staff.

On an average, inspections of children to the number of more than 80 per cent. of those on the roll are made by the school doctors for some purpose or another in the course of the year. Further, every child is seen some three times a year by a fully trained nurse who picks out for special examination by a doctor any child suffering from a gross departure from health. All this is apart from the steps taken by parents and teachers to secure medical attention when a child needs it. The danger of failure in bringing before the doctor any child, whose condition needs it, is small.

The question of the spacing of the routine medical inspections has received the Council's attention. The reorganisation of schools has altered the position very considerably and the points in the school life when children should be examined should logically coincide with the big alterations or moves which take place. That is, inspection should take place (*a*) at entrance ; (*b*) at age 7 (corresponding with the change in the status of infant to that of junior scholar) ; (*c*) at age 11 (corresponding with the transfer from junior to senior school) and (*d*) preparatory to leaving school altogether. In 1932, the Council decided to ask the Board of Education to agree to the examinations at the ages of 8 and 12 being changed to examinations at the ages of 7 and 11 respectively. The Board approved the scheme on condition that the fourth or leaving examination was continued in London by the Council.

There was almost complete agreement in regard to the desirability of the alteration of the age from 12 to 11, but the change from 8 to 7 years involved a serious administrative difficulty, owing to the fact that in the year of the change one group of children at age 8 would fail to receive a routine medical examination between the age of entrance and that of 11 years.

The Council decided that the changes should be made subject to the alteration from 8 years to 7 years being spread over five years by a scheme whereby all the 8 year old children in 1934 (born in 1926) will be cursorily inspected by a medical officer, and those whose condition appears to need it will be inspected in detail together with a proportion of children born in 1927. In 1935 the remainder of the children born in 1927 will be cursorily inspected and a larger number of children aged 7 (born in 1928) examined in detail and so on. Under this scheme it is anticipated, that after 5 years all children will be fully examined when aged seven years.

Length of time spent over each individual child.

At a routine inspection session normally lasting 2½ hours, the school doctors deal with 25 children. This gives an average of 6 minutes per child. It is found that the school doctors are able to carry out the inspection at this rate to their own satisfaction, but any attempt to increase the numbers seen results in dissatisfaction, and the feeling of racing against time.

Still more detailed inspections could, of course, be carried out, but this must result in slowing down inspections with greatly increased cost without an equivalent gain, since there is no evidence that with the present method defects requiring action are not detected.

In the early instructions and reports of the Board of Education the following statements occur :—

> " It is considered that the inspection of each child should not occupy on the average more than a few minutes."
>
> " A more elaborate form could readily be devised. but the Board's knowledge of the circumstances in which the work has to be done, led to the belief that greater elaboration would defeat its own end and create rather than remove difficulties. The experience of the authorities would appear to indicate that where the official schedule has been properly used and appropriately applied, and, in the case of infants, suitably modified, few cases of physical weakness have escaped detection whilst little or nothing of what might be thought of as inquisitorial, or unnecessarily clinical, investigation has taken place. It is necessary that the examination of each child should not as a rule occupy on the average more than say six or seven minutes."

The latest pronouncement of the Board on the subject is contained in the report of the chief medical officer, for 1931, issued at the end of 1932, in which the following statement occurs :—

> " The question has often been raised as to what amount of time is needed in order to carry out effectively a routine medical examination, and the Board have expressed the view that an average of about six minutes per child is a reasonable allowance."

The chief medical officer, however, qualifies this statement by reference to certain conditions which must be fulfilled if this estimate of time is to hold, viz., in the first place the medical officer needs to have some assistance, preferably, of course, from a school nurse. In the second place this routine examination should be in the nature of a sifting process and children found to have any physical or mental defect, the nature and extent of which are not immediately obvious, should be given a fuller examination subsequently. This further examination will, in urban areas at any rate, usually take place at a clinic.

At medical inspections in London there are normally present, the child, the mother, the doctor, the nurse, the head teacher or representative, and a representative of the care committee ; there are also present in the room very commonly or close at hand (1) the child just examined with parent and (2) being prepared for examination, the child next to be seen with parent.

The nurse undertakes the clerical work within her sphere, the care committee representative relieves the officers of a great amount of clerical work which otherwise would have to be done, and the teacher contributes also some definite help.

The results of medical inspection in 1933.

The number of elementary school children examined in the three statutory age groups (entrants, children aged 8 and children aged 12) during the year 1933 was 161,994. In addition, 56,660 children were examined in detail in the term prior to that in which they were due to leave school, and 1,553 children in special schools were examined on reaching their respective age groups.

Children referred by nurses, school teachers, care committee workers, divisional officers, etc., for examination for special reasons numbered 85,360; and 71,600 were examined in connection with outbreaks of infectious disease.

The total inspections amounted to 377,167, which represents a slight increase on the numbers in the previous year, namely 376,620. To this must be added the children 165,048 in number, who were re-inspected because of some previously noted defect.

Parents are invited to be present at all routine inspections, and attended in 74·1 per cent. of the examinations in the three statutory age groups compared with 68·5 per cent. in 1932. At the inspection of entrants, the proportion was 90·6 per cent., and in the "leaver" group 57 per cent. It is most satisfactory to be able to note a very distinct advance in the interest of the parents in the inspections. The presence of the parent has a very considerable effect, and relieves very greatly the task of following-up, as it eliminates the necessity for home visiting and correspondence.

Refusals.

Refusals of parents to submit children for medical inspection are so few in number as to be almost negligible. During the year 1933, the parents of 89 children (29 boys, 60 girls), compared with 113 in 1932, refused to allow them to be examined by one of the Council's assistant medical officers. Fourteen objections were subsequently withdrawn, and in 12 instances either medical record cards were completed by a private medical practitioner or medical certificates as to physical fitness were produced. The cases were distributed amongst the divisions as follows: N., 2; N.E., 13; N.W., 21; S.E. 20; S.W., 33.

The number of children subjected to routine inspection who were referred for treatment was 87,184, 39·9 per cent. of the number examined. This figure includes cases noted by the school doctors for dental treatment, and, if these cases be excluded, the percentage is reduced to 16·3, compared with 17·5 in the previous year. This quite considerable drop shows the healthy conditions which prevailed in 1933.

The analysis of the results of medical inspection set out in the paragraphs immediately following is limited to the three statutory age groups, in order to facilitate comparison with previous years. The results of the examination of the "leaver" group are dealt with separately.

The state of nutrition of the children.

Unremitting attention has been given to the state of nutrition of the children in school. The long continued depression with its attendant unemployment has produced acute anxiety lest the children should suffer.

School doctors, school nurses, teachers, managers of schools and members of care committees have all been eager in their watch for any signs of deterioration in classes of children in the schools, and in individual children. Many more doubtful cases have been brought before the school doctor for aid in decision as regards school feeding than in normal times.

In addition to the regular comprehensive routine care, special inquiries have been made, details of which are set out in the following pages.

All manifestations of life are attended with breaking down of the tissues of the body; to preserve life there must be constant repair. In addition during infancy and childhood provision must be made for growth, so that intake in the form of food must be greater than the loss in the form of activity and heat.

The nutritional state of the body depends upon the smooth flow of chemical processes involved in growth and repair. Malnutrition results from interference with this rhythm. The amount of food taken can vary widely without interfering with nutrition.

The character of the food can also vary considerably but not so widely as the amount. The ratio of the kinds of food is fairly fixed; in a good dietary the amount of protein must be between one-fifth and one-sixth of the whole. The fats and carbohydrates cannot take the place of protein, but can replace one another.

The recently acquired knowledge of vitamins and other accessory factors emphasises that we cannot do without freshness in the food consumed: fresh vegetables and raw fruit are essential.

The child can accommodate himself to a wide variation in amount, and it is not easy to overfeed an active child on a properly balanced diet. Overfeeding on an incorrectly balanced diet is, however, invariably attended with interference with nutrition and growth.

Malnutrition is also related to poor home hygiene, lack of ventilation, lack of sleep and overcrowding.

It is also produced by undue expenditure of energy. There is nothing like a fever to reduce the body rapidly. Illness is a frequent cause, but over-work and over-activity also have similar effects. There is a kind of over-work almost impossible to control which is found in certain school children. These are the nervous worrying type, who are never still. There are also children who are the subjects of congenital asthenia not infrequently encountered in the schools. They are the "lean kine" whom it is impossible to fatten.

In the estimation of the state of nutrition of the child, height and weight are most useful, but the normal variations are so great that the results in each case must be carefully checked by a physician's examination. Most ill-nourished children are under weight, but many under weight children are not ill-nourished. Of many boys much under weight the mother says with truth "He is thin but wiry, just like his father before him and he nevers ails anything." The physical estimate of the physician is based upon colour, weight, subcutaneous fat, condition of muscles —flabby or firm, defective posture and other fatigue signs.

The Board of Education syllabus provides for every child to be marked during routine inspection as "1," "2," "3" or "4"; 1 being exceedingly good nutrition, 2 normal, 3 subnormal, and 4 definite pathological malnutrition. Complete surveys by the school doctors exist for about a quarter of a million children examined each year since 1912. In that year the number returned in classes 3 and 4 taken together formed 12·8 per cent. of the total examined. This proportion was gradually reduced until in 1930 the proportion was 4·8 per cent., and in 1931 this proportion remained unchanged. In 1932 there was a very slight set back to 4·9 per cent., the result mainly of an increase in ill-nourishment in the entrants who had just been through a very severe epidemic of measles.

In 1933 the proportion of poorly nourished children is returned at 4·7 per cent. which is the lowest figure ever attained in London.

The figures in detail for each sex in each statutory age group are given in the following table :—

NUTRITION SUBNORMAL—PERCENTAGE OF CHILDREN EXAMINED.

Age group.	1920.	1925.	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.
Entrant boys	6·4	5·7	5·7	5·0	5·0	4·6	4·4	4·4	5·1	4·4
,, girls	5·9	5·0	4·8	4·0	4·1	4·0	3·5	3·6	3·8	3·8
Eight-year old boys	9·0	8·5	8·2	7·3	6·7	6·7	6·3	6·6	6·3	6·4
,, girls	7·8	7·2	6·6	6·1	5·2	5·2	5·1	5·0	5·0	5·0
Twelve year old boys	6·3	6·5	6·7	5·4	5·3	6·0	5·1	5·2	5·0	4·8
,, girls	5·6	6·3	6·3	4·8	4·4	4·9	4·5	4·2	4·3	4·2
All above age groups	6·7	6·3	6·2	5·3	5·1	5·2	4·8	4·8	4·9	4·7

The number of children found in category 4, *i.e.*, definitely malnourished, again was insignificant, viz., 29, being exactly the same as that in the previous year.

There can be no doubt but that this result is to a large extent due to the fact that all connected with schools—managers, care committee members, teachers, attendance officers, school doctors and school nurses—have been on their mettle.

In London means exist to cope with any case of malnutrition or threatened malnutrition immediately and effectively. The children are daily for hours under the observation of kindly, intelligent adults who have the power of immediate intervention in case of necessity. If there is a child in a London elementary school suffering from lack of nourishment who is not immediately dealt with someone is at fault.

There is a certain number of children who are not necessitous but belong to the types mentioned above. They have been delicate from birth, or they have suffered serious illness, or they are of the nervous worrying kind; in these cases there is a lack of resistance—they require special help such as additional milk or cod liver oil, transfer to a special (open-air) school, or a period in the country.

There is another set of figures prepared for table II of the annual return for the Board of Education. Here what is asked for is not the total number of children in categories 3 and 4, but the number marked by the school doctor for treatment or observation. This is a much smaller number than the totals of categories 3 and 4. It contains all the children in category 4 and a certain number of those in category 3. This number has risen during the past three years of economic crisis.

The children marked "for observation" with regard to nutrition are mainly those referred for treatment for some other condition of which the disturbance of nutrition is regarded as a symptom. They are weighed at regular intervals by the school nurses.

FIGURES FOR MALNUTRITION COMPILED FOR "TABLE II" (Elementary Schools).

Year.	Routine inspections.					Special inspections.		Total cols. 3, 4, 7 & 8.
	Number of inspections.	Requiring treatment.	Requiring observation.	Total cols. 3 & 4.	Percentage.	Requiring treatment.	Requiring observation.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1925	238,713	664	1,003	1,667	·69	536	541	2,744
1926	246,795	829	1,026	1,855	·75	457	396	2,708
1927	254,173	857	991	1,848	·72	446	237	2,531
1928	266,556	904	985	1,889	·71	562	181	2,632
1929	246,273	849	924	1,773	·72	535	190	2,498
1930	216,853	888	802	1,690	·73	429	179	2,298
1931	218,999	979	882	1,861	·85	622	216	2,699
1932	220,025	1,109	902	2,011	·91	1,531	379	3,921
1933	218,654	1,311	781	2,092	·96	599	195	2,886

Two points arise out of these figures. In the first place there may have been with a stationary number of children who are undernourished a slight worsening of the condition in certain individuals; on the other hand it may be that the keen anxiety felt with regard to economic conditions has led to a greater readiness to take preventive action before definite deterioration has taken place.

Taking routine and special examinations together the number of children noted for treatment or observation for malnutrition fell from 3,921 in 1932 to 2,886 in 1933. These represent the "working figures" which reveal the active measures taken, the result of which has been to preserve the children from serious deterioration.

Following on previous reports made on the present nutritional state of school children, I was on 23rd January, 1933, instructed to make similar inquiries and examinations of groups of children in further areas.

The medical examination of the children was performed throughout by Dr. R. H. Simpson, who conducted the former inquiries. The collateral inquiries into social conditions were carried out by the personnel of the school care organisation.

As the purpose of the inquiry was to endeavour to discover children who might be suffering from the economic crisis, it was important to make a careful selection of the schools in which it should take place, and for this reason it was made known that it was open to anyone to make a suggestion on the grounds that anxiety was felt as to the nutrition of the children. Various local associations of care committees directed attention to certain schools, and others were nominated by individuals. They were situated in all parts of London. On the whole the choice fell upon schools in definitely poor areas, some with bad housing, but the possibility that the real stress of circumstances might be most hardly felt by families who would not easily make their difficulties known was not overlooked, and a proportion of the children examined were advisedly drawn from rather better localities. Classification is difficult, but roughly, the schools may be put in the following categories :—

Very poor	5	(open spaces near	3)
Poor	2	(,, ,,	1)
Moderate and mixed ...	4	(,, ,,	4)
Good on the whole ...	1	(,, ,,	1)

The ten-year old age group was decided upon because it was well away from any medical inspection age group and the children would not, therefore, be the subjects of action arising out of recent medical recommendations. A point was thus definitely chosen where, if anywhere, there would be children overlooked by the Council's welfare system. The field covered by the inquiry cannot, consequently, be regarded as typical of the school population as a whole.

Altogether, 1,281 children in the age group selected were examined of whom 93·5 per cent. were considered well and 6·5 per cent. poorly nourished. Only two children were grossly ill-nourished. Of eight-year old boys in the same schools examined by the school doctors during the present year, 7 per cent. were recorded as being poorly nourished. The findings, therefore, by a skilled observer in an *ad hoc* examination of the children compare very well with the results of general school medical inspection.

There is no great variation in the numbers found to be subnormal in the different districts.

There is no significant incidence of poorly nourished children corresponding to social conditions within the limits of this enquiry.

Subjoined is the percentage of poorly nourished children amongst those whose parents were in the following categories in regard to employment :—

Full-time employment	7·6	Transitional benefit	7·9
Part-time or casual	4·7	On public assistance	7·5
Unemployment benefit	5·3	Other income	4·2

In addition to the 1,281 unselected children in the age group there were examined all the brothers and sisters attending school of those children found poorly nourished. These numbered 140 children. As might be expected, the proportion of these children themselves showing poor nourishment was higher, viz., 20 per cent. The following conclusions were reached :—

(1) That in view of the fact that the selection of the schools and age group was made with the direct purpose of discovering the worst, the percentage of children found to be below par is surprisingly small, and that gross malnutrition should only have been found in 0·2 per cent. is remarkable.

(2) That poor nutrition appears on the whole to be an idiosyncracy of certain children, the cause of which is at present uncertain.

(3) That there is no one social or economic contributory cause, but that certain adverse conditions probably affect certain children—" the weakest goes to the wall."

(4) That with the amelioration of social conditions and the spread of the knowledge of the laws of health which is going on now, improvement in the nutrition statistics may be hoped for, though it appears unlikely that a complete elimination of the evil can be attained.

(5) That parents, teachers, care committees and doctors are to be congratulated that, in a time of prolonged financial difficulty, 93·5 per cent. of the children examined have been declared fit from a nutritional point of view.

Cleanliness.

The percentage of children found free from even traces of nits or pediculi in the hair was 96·2 compared with 95·8 in the previous year. This is the best result ever obtained. Those free from traces of body vermin remain at the high percentage of 99·9. For some years past the condition of the hair of the 12-year old girls has been taken as the criterion of cleanliness, and it has been pointed out that there has been a gradual improvement from 67·2 per cent. free in 1913 to 75 per cent. in 1923, 91·9 per cent. in 1930, and 93·5 per cent. in 1931. This figure was still further improved in 1932, when the high level of 95·8 per cent. was obtained.

Unfortunately the percentage in this group which has always been chosen as the index group has fallen back one unit this year for it stands at 94·8, a disappointing result to happen when the condition of the other groups is better in this respect than ever before. The reason why the twelve-year old girls were chosen as an index is that they have always given the worst result of all the groups, for mothers expect the older girls to look after their personal cleanliness themselves.

It is now very rare for the school doctor to find a child actually infested with body vermin ; a condition which 3 to 4 per cent. of the elementary school children exhibited in the early days of medical inspection, but is now only to be found in one in a thousand.

This remarkable progress in freeing the children of the elementary schools from parasitic infestation has been accompanied by the raising of the general level of care, of tidiness and of happiness, and forms by no means the least of the benefits which the school medical service has brought to the schools, the teachers, and the population generally.

Clothing and footgear.

When the children are undressed by the nurse preparatory to the medical inspection, she enters on the medical record card a note of the condition of the clothing and footgear. At a time of stress it is likely in most instances that the first sign of struggle will be a deterioration in clothing rather than in nutrition. The last year in which these figures were analysed and set out in my annual report, was 1921. I have prepared them again this year, with the result which is seen in the following table :—

Age group.	1921.			1933.		
	Good.	Fair.	Bad.	Good.	Fair.	Bad.
Entrant boys	62·3	35·9	1·8	54·7	44·5	0·8
,, girls	62·7	35·8	1·5	55·3	43·9	0·8
Eight-year old boys	58·6	38·5	2·9	52·3	46·8	0·9
,, girls	58·9	39·1	2·0	54·3	45·0	0·7
Twelve-year old boys ...	54·4	41·9	3·7	53·6	45·7	0·7
,, girls	57·6	40·7	1·7	56·7	42·7	0·6

It is found that while bad clothing and footgear is distinctly less frequent than it was formerly there has been a transfer from the " good " column to the " fair " column of from one to eight per cent. The indications from this survey are that while indigence has been alleviated things are " tighter " amongst those above the poverty line and that clothing has suffered to some extent in order to provide sufficient food.

The proportion of children found at medical inspection in a satisfactory dental condition was 67·4 per cent., exactly the same as in 1932, and compared with 64·4 per cent. in 1931, and 62·9 per cent. in 1930. Details are set out below :— Dental decay.

Age group.	1924.		1927.		1930.		1932.		1933.	
	Sound.	Serious decay.*	Sound.	Serious decay.*	Sound.	Serious decay.*	Sound.	Serious decay.*	Sound.	Serious decay.*
Entrants boys	59·0	12·5	51·7	15·3	53·0	14·7	55·6	12·2	56·1	11·6
,, girls	58·4	12·4	50·7	15·2	52·2	14·9	54·7	12·1	55·3	11·7
8-year old boys ...	58·5	10·0	61·1	8·1	66·7	6·8	68·8	4·7	70·7	4·5
,, girls ...	58·0	10·2	60·9	8·3	65·4	6·8	68·8	4·7	69·9	4·4
12-year old boys ...	68·0	3·4	70·6	2·7	73·1	2·1	75·1	1·5	75·8	1·3
,, girls ...	70·5	2·6	72·3	2·3	75·3	1·6	78·0	1·1	77·0	1·1
All above age groups	62·1	8·5	60·3	9·3	62·9	8·6	67·4	5·8	67·4	5·8

* Serious decay = four or more carious teeth requiring treatment.

A comparison of the result in each age group shows, however, that there has been definite improvement in all except the 12-year old girls.

The percentage with serious dental decay has also remained at precisely the same level, viz. 5·8. Although the entrant infants reveal a very much higher percentage of dental defect than the other groups, their condition has shown definite improvement during the past few years and this improvement has continued during the present year.

In the statutory age groups 6,816 children were referred for treatment of enlarged tonsils or adenoid growths ; this is 4·1 per cent. of the children examined, compared with 5·1 per cent. in 1932, 6·6 per cent. in 1931, 6·7 per cent. in 1930, and 7 in 1929. These nose and throat conditions are found chiefly among the entrant group, many of the children in the older groups having already been dealt with before their examination in those age groups. The percentages requiring treatment for these conditions were : entrant boys 7·6, girls 7·3 ; 8-year boys 3·0, girls 3·6 ; 12-year boys 1·5, girls 2·1. Enlarged tonsils and adenoid growths.

There has been a continued drop in the percentage of children referred for treatment for enlarged tonsils and adenoid growths.

The proportion of those recorded as having enlarged tonsils and adenoid growths who were referred for operative treatment was 38 per cent., compared with 43 per cent. in 1932.

Otorrhœa was noted in 1,332 children, or ·8 per cent. of those examined, which is the same percentage as in 1932, and compares with 1 per cent. in 1931 and 1930. The highest proportion of these cases was found in the entrant group. In no year prior to 1930 was the percentage of children with " running ears " less than one ; and the result in the past two years in this respect is therefore the best yet obtained. In 1927 the percentage was 1·3, and in 1913 it was over 2 per cent. The institution of special ear centres for specialist examination of children with discharging ears has produced a considerable improvement. Consequent upon the attention paid in the early stages to conditions which, if neglected, produce deafness, there has been a considerable reduction of the numbers suffering from this defect. Hardness of hearing was found in 383 children, or only ·2 per cent. of those examined. This compares favourably with 453 in 1930, 696 in 1929, and 868 in 1927, and again equals the best result yet obtained. Otorrhœa and hardness of hearing.

Mention is made in another part of this report (page 38) of the use of the audiometer, which brings to light many minor degrees of hardness of hearing and cases of unilateral deafness, which, while not interfering with education, are sometimes the indication for active preventive treatment.

Children in the 8- and 12-year age groups have their visual acuity tested by means of the Snellen cards, those whose defects have been corrected having their vision tested wearing their glasses. In the 8-year old group 39·7 per cent. boys and 40·4 per Defect of vision.

cent. girls, and in the 12-year old group 35·9 per cent. boys and 37·5 per cent. girls were unable to pass the normal vision test. These figures show a very considerable improvement on the results obtained in 1932 when 41 per cent. of 8-year old boys, 43·2 per cent. of 8-year old girls, 34·6 per cent. of 12-year old boys and 38·2 per cent. of 12-year old girls, and in 1931, when 45·6 of 8-year old boys, 46·1 per cent. of 8-year old girls, 38·4 per cent. of 12-year old boys and 40·6 per cent. of 12-year old girls failed to pass the tests.

The improvement year by year in the condition of the children in this and in all other respects is very gratifying and encouraging to the service.

Defects of a more serious character (*i.e.*, vision of 6–12 or worse in either eye) occurred in 14·7 per cent. boys and 14·4 per cent. girls in the 8-year old group and 17·7 per cent. boys and 17·4 per cent. girls in the 12-year old group, compared with 15·1 per cent. boys and 15·8 per cent. girls in the 8-year old group, and in 17·1 boys and 18 per cent. girls in the 12-year old group in 1932. This again shows steady improvement which has been going on for several years—in 1925 the 8-year old group showed 18·4 per cent. with serious defect, in 1927 the percentage was 18, and in 1929 and 1931, 16·8 and 16·9 respectively; the 12-year old group in 1925 showed a percentage of 20·6, in 1927 it was 20·9, in 1929 this percentage was 19·3, and in 1931 it was 18·5. The improvement is most marked among the 12-year old girls, and there is little doubt that the importance of the early correction of visual defect is becoming more widely recognised among the parents.

Heart and anæmia.

Heart defect (functional or organic) was reported in 3,012 children or 1·9 per cent., the same percentage as in 1932, compared with 1·8 per cent. in 1931, and 2 per cent. in 1930. As usual, older girls presented a percentage (2·4) in excess of older boys (1·7).

In studies of rheumatism in the metropolis it is found that girls suffer to a greater extent than boys in the proportion of about 3 to 2. It is reasonable to deduce that the figures for heart defect reflect this excessive incidence of rheumatism. Anæmia was found in 1,537 cases, or ·9 per cent., an improvement upon the years 1931 and 1932, when the percentage was 1·1 compared with 1·2 per cent. in 1930. This is less than half the proportion found in 1926 and corresponds with the general improvement in nutrition.

Lung defects.

Lung defects were noted in 3,314 children (2·0 per cent.), compared with 2·1 per cent. last year.

The bulk of the cases are provided by the entrants (3·5 per cent.). These cases are largely bronchial catarrh, which is especially prevalent amongst entrant infants who present rickety manifestations, and the preponderance of incidence upon infant boys compared with girls holds as in rickets.

Tuberculosis.

There were 67 children in the three age-groups reported to have symptoms indicative of pulmonary tuberculosis, but only 11 of these were not already under treatment. In addition, 32 children had other forms of tuberculosis. The incidence of tuberculosis in any form found at routine inspections is ·6 per thousand.

The figures show a definite decline, although for many years the amount of tuberculosis amongst school children has been very small.

Nervous diseases.

Epilepsy was noted in 61 cases, compared with 52 in 1932, 65 in 1931, 60 in 1930 and 73 in 1929; chorea in 132 cases, compared with 158 in 1932, 170 in 1931, 186 in 1930 and 178 in 1929; paralysis in 56 children, compared with 63 in 1932, 81 in 1931, 76 in 1930 and 122 in 1929.

Rickets.

Symptoms of rickets or the effects of early rickets were noted in 445 children. This is ·3 per cent., compared with ·32 per cent. in 1932, and ·4 per cent. in 1931 and 1930. Infant boys had an incidence of ·7 per cent., compared with ·9 per cent. in 1932 and infant girls ·3 per cent., compared with ·4 per cent. in 1932. The stigmata of early rickets tend to disappear as growth proceeds. The returns of routine medical inspection therefore do not support the view that rickets is on the increase in London, though the results in school children only indicate what has happened some years before.

Spinal curvature accounted for 612 cases (·4 per cent.), the same proportion as last year. Of these 256 (·9 per cent. of those examined) were among the 12-year old girls, while the 12-year old boys showed ·3 per cent. Other deformities were present in 1,515 children (·9 per cent.). This is a decrease of ·1 per cent. on 1932. Deformities.

Records are made of the presence or absence of vaccination marks when children are stripped for medical examination, but no inquiries are made. The following are the results of the doctors' observation of the percentage of children having vaccinal scars: entrants, 46·6; 8-year olds, 49·3; 12-year olds, 50·7; and "leavers" (13½), 55·1; compared with, in 1932, entrants, 47·7; 8-year-olds, 53·1; 12-year-olds, 52·1; and "leavers" (13½) 55·5. These figures show that the percentage of children with obvious vaccination marks is less than last year, just as last year's percentages were less than those of the previous year. Vaccination.

Thus the number of children protected from smallpox by vaccination grows less with each succeeding year, in spite of the fact that smallpox, of a mild character it is true, is still present in the community.

The Council has undertaken the examination of a fourth age group, namely, children who are leaving school. This examination takes place in the term prior to that in which the children are due to leave school. The results of this examination are available at the school-leaving conference, and are of assistance in determining the choice of a suitable occupation. Coming at the end of the school career, the examination is useful in estimating the results of medical attention received since the children entered school. The health of the leaving child.

This year's "leaver" group was formed of the children born in the year 1919–20 and consequently the numbers are much larger than in the previous year, consisting of 28,788 boys and 27,872 girls. In nutrition they were found to be better than the younger groups, only 3·7 per cent. of the boys and 2·7 per cent. girls being classed as subnormal, compared with 3·8 per cent. boys and 3·2 per cent. girls in the previous year.

In personal cleanliness this group also shows an improvement on the 12-year olds, 98·4 per cent. boys and 95·6 per cent. girls having perfectly clean heads. The dental condition of this group was found to be slightly inferior to that of the 12-year old group, for both boys and girls, the percentage with satisfactory mouths being 74·4 in the case of boys, and 75·5 in the case of girls, compared with 75·8 and 77 respectively in the 12-year old group. In other respects the "leaver" children showed an improvement in health over the 12-year old group.

Spinal curvature in the "leaver" girls was reported in ·8 per cent. of the cases compared with ·9 per cent. at age 12; on the other hand heart defect in the "leaver" girls was 1·9 per cent. identical with the figure in the 12-year old group.

The falling off in the condition of the teeth of the "leaver" children is not a satisfactory feature of the school medical work. It is due to the fact that skilled inspection of the teeth by the inspecting dental surgeons does not extend in all cases to the children aged 12 and 13 years, but ceases at the age of eleven in some schools. This should be remedied by increased dental inspections so soon as the time is favourable.

The reorganisation of the tops of schools has also placed much difficulty in the way of following up the older children.

The condition of the "leaver" children of 1933 was better than that of those of 1932. The latter were children born towards the end of the war. They were in the main the children of fathers unfit for military service. It may therefore be their defects were due to nature and not to nurture.

In the second year of the war the birth rate fell to an unprecedently low level and continued at this low level throughout the war.

The recruiting authorities are this year drawing attention to the falling off in physical condition of the recruits. The reason probably is that they are now beginning to recruit from the children of those years of low birth rate during the war whose physique was poor not because they were affected by war conditions (for

speaking generally children were well fed during the war) but because they were mainly the children of the men who were unfit.

There is little doubt that there will be a great change for the better so soon as reports on the children at present leaving the schools become available. Immediately after the demobilisation the birth rate shot up and with it came a great improvement in physique for the increase was due to the birth of children whose fathers were men of first class physique.

Special examinations.

An analysis of the results of medical inspection of children in the age groups does not tell the whole story with regard to the health of the children in the schools. The children are, day by day, under the intelligent observation of their teachers, the school care committees, and the school nurses, and any gross variation from health is unlikely to pass unnoticed.

The number of children, not in the age groups for routine examinations, submitted to the school doctors as special cases was 85,360, and this figure does not include another 71,600 who came under inspection in the course of enquiries into outbreaks of infectious diseases.

Although the number of children seen at special inspections was much less than one-half of the number seen in the routine age groups, yet in the case of many diseases the actual numbers found to be suffering therefrom in the former generally exceed those in the latter. Thus 1,904 children with scabies were referred for treatment at special inspections, compared with 129 only at routine inspections. Heart trouble requiring treatment was detected in 373 children at special inspections, compared with 326 at routine inspections. So far as tuberculosis is concerned 30 children were referred for treatment from special inspections, and 26 from routine inspections (including that of the extra " leaver " group). In regard to epileptics 108 first came to notice at special inspections, compared with 55 at routine inspections, and 215 children with chorea were referred for treatment at special inspections, compared with 67 at routine examinations.

This is evidence that considerable advantage is being taken of the doctors' visits to the schools and that really ailing children are promptly brought under medical advice.

Conclusions.

The year was one of overflowing sun. This no doubt, contributed to the healthy state in which the children were found. Fewer defects than ever before were reported. Further the last has been seen so far as the elementary schools are concerned of the weakly children of the war.

The state of nutrition and the cleanliness of the children has been maintained. But the index group, the girls of twelve years of age, who have always been the greatest sufferers from unclean condition have fallen slightly from the pinnacle they reached in the previous year.

There are indications of a struggle against adverse circumstances bravely met and in the main victorious.

There are indications of both intense anxiety lest the child population should suffer, and of high resolve that they shall be shielded from suffering as far as is humanly possible.

The early signs of suffering in children are eagerly sought and as eagerly the means which exist to remedy the evil are applied to each individual case. Although serious malnutrition is uncommon there is a certain number of children whose nutrition has slightly worsened, but these are being found and saved by timely action from serious ill effect.

More children have been brought before the doctor.

More children are being fed in school, a number of delicate children whose parents formerly paid for their school milk are now having it free. More children have been sent to the country for convalescence and recuperation.

The social welfare organisation of care committee members has been more active than ever.

There has been a slight falling off in the number of children brought to dental treatment, but there has been an improvement in the number provided with spectacles

who needed them, and a better percentage of children obtaining the necessary medical treatment than ever before. It is the cessation of progress in improving the dental condition of the children which at present chiefly produces misgiving.

Standards of physical attainment.

In the course of his survey in 1933 of the nutritional state of 10-year old children in the schools, Dr. R. H. Simpson ascertained their height and weight. In the following table the averages resulting are compared with those compiled for the whole of London between 1902 and 1907. There is a gain shown both in boys and girls, and this confirms other observations made in recent years. Although the gain is slight in these figures, it must be pointed out that, while the " standard " was obtained from all classes of schools, Dr. Simpson's inquiry related mainly to schools in poor and overcrowded districts.

Table I—Heights.

1933.			Former standard.	
Number of children examined.	Average height. cms.	Probable error.	Number examined.	Average height. cms.
Girls—613	130·89	± 0·18	1,445	129·9
Boys—667	131·06	± 0·16	1,492	129·8

Table II—Weights.

1933.			Former standard.	
Number of children examined.	Average weight. kgms.	Probable error.	Number examined.	Average weight. kgms.
Girls—611	27·60	± 0·10	1,445	27·2
Boys—667	28·16	± 0·09	1,492	27·6

The public health department was requested by the education officer to deal with an enquiry from a Government department on the minimum standard of height and chest measurement for boys of 14, 14½, 15 and 15½, who would be accepted later for nautical training.

There were, naturally, no figures for elementary children above the age of 13. Roberts' tables are 50 years old but they are the most comprehensive available. There is reason to think all classes of the population have gained about an inch on Roberts' figures.

Appended are Roberts' heights for artisans and for mixed public schools and cadets, and, in the third column, the heights in a modern secondary school which show about one inch gain on Roberts' figures for public schools and cadets.

Given at the foot of each column is the chest measurement as a percentage of the height. It will be seen that Roberts' chest percentage for public schools and cadets is higher than that of the other two classes; this is, no doubt, because these contained a large portion of cadets specially picked from the population for their robust physique.

Table III.

Age.	Mean height inches. Roberts' artisans.	Mean height inches. Roberts' public schools and cadets.	Average height recent secondary school boys.
	(1)	(2)	(3)
14	56·75	59·75	60·4
14½	58·0	61·0	62·0
15	59·25	62·25	63·2
15½	60·5	63·5	64·4
	Chest percentage of height: 45.	Chest percentage of height: 48·8	Chest percentage of height: 45·8.

It is important to bear in mind that, in all these measurements, heights are taken without boots and the chest is measured empty.

Support is given to the idea that Roberts' tables may be taken as a modern guide, with the addition of about one inch at each age, by the following figures of approximate measurements at 14th birthday :—

Table IV.

	inches.
(1) Roberts' artisans	56·75
(2) Roberts' public schools and cadets	59·75
(3) Recent measurement of secondary schoolboys ...	60·4
(4) Young's " super-rich "	62·8
(5) Chicago figures	62·0
(6) Stephenson's secondary schoolboys	60·5
(7) Tuxford and Glegg's elementary school	57·7
(8) Edmonton elementary school	58·0

It will be seen that both (7) and (8) are about one inch taller than Roberts' artisans were fifty years ago.

On the assumption that boys rather above the average were required, it was suggested that the heights selected should be somewhere about half-way between those in column 1 and column 3 of table III.

With regard to chest measurements, it was pointed out that, if minimum height measurements and minimum chest measurements were given, many boys might be accepted considerably above the minimum height and only just clearing the minimum chest measurement for their age ; and that would mean a lot of weedy specimens of lanky " pre-tubercular " build without any resisting power.

The chest measurement should be a given percentage of the height of each individual boy ; in table III the average chest measurement is 45 per cent. of the average height in Roberts' artisans, and 45·8 per cent. of average height in the modern figures of a secondary school in column 3. It should be noted that Roberts' " means " do not differ appreciably from his " averages."

The relation of chest girth to height does not differ appreciably at the different ages between 13 and 16. Column 2, however, which relates to boys a number of whom were picked for robustness, has a percentage of chest girth to height of 48·8. The Edmonton school boys of 14 (No. 8, table IV.) had a chest girth 44·4 per cent. of height.

It is suggested that, whatever figure be adopted as the minimum height, in order to be sure of having boys of robust build, it should be laid down that the chest girth should be a percentage of the individual height of each boy somewhere between 45·8 and 48·8, say, 46·5 or 47 (a table of required chest measurements corresponding to each possible height could easily be worked out).

Standards of mental attainment.

The educational and physical needs of the children are unfortunately not infrequently in conflict and often it is the educational need that must suffer.

On the other hand too rigid an insistence and enforcement of the educational needs often react prejudicially upon the health of the child. This is the case, for instance, when children are promoted from one class to another or from one department to another on a rigid basis of age. Calendar age is quite a different thing from physiological age. Children develop physiologically and mentally at varying rates.

There are strong differences in this respect in various groups within the population. The slow developing children are none the worse for this. They continue to develop much longer than the others, and eventually may attain the same or even a higher development of mind and character. When scholarships are awarded on examinations taken at a given age, the precocious children are given an unfair

advantage at the expense of the more slowly developing children who may be superior in the end.

Many backward but quite normal children are made to suffer by being pressed forward too rapidly, because only calendar age is taken into consideration.

Attention has been directed to the retention of children in a junior department on medical advice beyond the age limit which has been laid down for transfer to the senior school.

Such considerations as these no doubt prompted an inquiry from one of the great voluntary hospitals as to standards of attainment expected from children in the various departments of the elementary schools.

To this enquiry the education officer gave the following reply :—

No definite standards of attainment for children in the various types of schools mentioned in your letter have been laid down by the Council. The conditions and attainments of the children vary so much from district to district that it is not practicable to do so.

I am afraid, therefore, it is not possible to give you the information you require in the form in which you desire it. I trust, however, that the following notes may be of some assistance to you.

Considerable latitude is allowed to head teachers both in regard to the subjects taught and to whether promotion from class to class shall be made yearly or half-yearly. The Council's regulation provides that "such promotion shall be based upon the educational attainments of the children. Regard shall be had to the age of the children and to the accommodation provided by the several classrooms." Normally, promotion from junior to senior schools is made on the basis of age determined with relation to the final junior county scholarship examination. This age of promotion varies from 11 years to 11 years 6 months.

With regard to the question of backward children, the new system of school organisation introduced on the lines of the report of the Hadow Committee, makes it possible to have two, or more often several, streams of pupils through a school, *i.e.*, a series of classes through which the brighter children pass, and one or more similar series of classes for those who develop more slowly. Provision is thus made for the brighter children in classes with similar children of their own age, and this arrangement is preferable to the alternative method of rapid promotion of bright children to higher standards with older children. The disadvantage and discouragement of keeping a backward child in a class with children so much his juniors is also avoided. This system of organisation has now been introduced into the majority of the Council's elementary schools.

Except in the case of children who are backward merely by the accident of long illness, constant change of school owing to parents' removal, etc., the modern tendency is to treat backward children by methods differing from those applied to normal children, rather than to press them harder with the normal school work or by giving them extra homework. There are a number of special classes for very backward children.

On the question of home lessons, the Council directs that efforts shall be made to secure that all children attending public elementary schools, whose age, attainments and home circumstances are suitable, shall do home lessons. These must not, however, be enforced as part of the school discipline against the expressed wishes of the parents.

The entry of children to central schools is basically selective. Normally, only those are admitted who reach a certain level of attainment by examination in English and arithmetic, backed by a good school record and a standard of physical fitness which will enable them to benefit from the more advanced instruction provided in the central school. The normal age of admission is between eleven and twelve years, and, generally speaking, the children transferred to central schools may be regarded as the brighter children from the ordinary elementary schools, apart from those who succeed in qualifying for scholarships tenable at secondary schools.

Following-up.

The returns of the school doctors who re-inspect children found at the routine inspections in elementary schools to be ailing and in need of treatment make it possible to compile a statistical record of following-up. During 1933, 162,150 children were re-inspected, a decrease of 13 on the number for 1932. At the first re-inspection 110,643 cases of defects requiring treatment (some children having more than one defect) were reviewed. At the second re-inspection 51,507 cases not cleared up at a first re-inspection were again reviewed. By combining the results of both re-inspections it is found that 82·2 per cent. of the children re-inspected were treated or discharged as no longer requiring treatment. This result is a further advance upon the previous year, when it was 81·6 per cent., and it is the best result hitherto recorded.

FIRST RE-INSPECTIONS, 1933.
(Percentages are given in italic type.)

Defect treated.	No. of cases.	Treated.						Untreated.		
		By private doctor.		Under Council's scheme.		At other hospitals.		Discharg'd	Improved. For observation only.	Still needing treatment.
		Discharg'd	Not discharg'd	Discharg'd	Not discharg'd	Discharg'd	Not discharg'd			
Refraction	21,549	134	59	5,484	2,950	526	558	1,538	4,191	6,109
		·6	*·3*	*25·4*	*13·7*	*2·4*	*2·6*	*7·1*	*19·5*	*28·4*
Minor ailments ...	7,423	209	36	1,923	544	393	190	1,942	1,011	1,175
		2·8	*·5*	*25·9*	*7·3*	*5·3*	*2·6*	*26·2*	*13·6*	*15·8*
Nose and throat ...	13,678	38	5	4,817	233	733	75	1,470	2,019	4,288
		·3	*·0*	*35·2*	*1·7*	*5·3*	*·5*	*10·8*	*14·8*	*31·4*
Teeth	55,500	1,605	383	22,632	848	1,344	137	3,538	1,100	23,913
		2·9	*·7*	*40·8*	*1·5*	*2·4*	*·2*	*6·4*	*2·0*	*43·1*
Other ailments ...	12,493	291	97	549	733	1,145	954	3,101	3,960	1,663
		2·3	*·8*	*4·4*	*5·9*	*9·2*	*7·6*	*24·8*	*31·7*	*13·3*
Total ...	110643	2,277	580	35,405	5,308	4,141	1,914	11,589	12,281	37,148
		2·1	*·5*	*32·0*	*4·8*	*3·7*	*1·7*	*10·5*	*11·1*	*33·6*

SECOND RE-INSPECTIONS, 1933.

Refraction	12,738	85	21	2,223	1,483	268	176	1,287	3,100	4,095
		·7	*·2*	*17·4*	*11·6*	*2·1*	*1·4*	*10·1*	*24·3*	*32·2*
Minor ailments ...	2,873	44	13	535	275	115	80	751	471	589
		1·5	*·5*	*18·6*	*9·6*	*4·0*	*2·8*	*26·1*	*16·4*	*20·5*
Nose and throat ...	8,108	15	5	2,142	95	294	45	1,527	1,460	2,525
		·2	*·1*	*26·4*	*1·2*	*3·6*	*·5*	*18·8*	*18·0*	*31·2*
Teeth...	21,414	645	148	7,164	325	477	67	2,300	548	9,740
		3·0	*·7*	*33·5*	*1·5*	*2·2*	*·3*	*10·7*	*2·6*	*45·5*
Other ailments ...	6,374	82	31	215	439	420	432	1,683	2,228	844
		1·3	*·5*	*3·4*	*6·9*	*6·6*	*6·8*	*26·4*	*34·9*	*13·2*
Total ...	51,507	871	218	12,279	2,617	1,574	800	7,548	7,807	17,793
		1·7	*·4*	*23·8*	*5·1*	*3·0*	*1·6*	*14·7*	*15·2*	*34·5*

Great difficulty is experienced in persuading parents and children to obtain treatment for dental defects. In spite of most intensive effort little headway is now being made in this respect. The more intelligent parents, as is shown by the condition of the teeth of the children gaining scholarships, take advantage readily of the facilities, but it appears that a point has been reached at which the apathy and obstinacy of the remaining parents is invincible. This is met at every turn.

A parent of a central school candidate was informed that a clear medical certificate could not be issued until treatment was obtained for a number of decayed teeth in the child. The parent replied that he had been to a dentist who had informed him that the teeth were not yet ready for extraction. The parent was then asked to submit a dental certificate. When this was received it read, "I have examined X's mouth and find six teeth requiring filling." This section of the population, about 40 per cent. of the whole, is not yet educated up to the idea that teeth may be saved by filling. They prefer to wait until pain gives the signal for removal of the offending tooth by force.

The late Dr. F. C. Lewis received the following letter from a parent :—

Will you kindly inform the doctor that F. B.'s father is quite aware of the chief thing that is destroying his child's teeth which is the scientific food he is compelled to live upon against the express laws of God. So soon as so called savage races leave nature and become civilised their teeth and stomachs go west and the need of doctors become necessary. Factory-made foods, preserving and sterualising (*sic*) of food declare at once the corrupt state of foods and the cause of bad teeth and stomachs.

Freddie's teeth must not be interfered with. Nature will put them right by casting them out in their natural way. (Signed) Mr. A. B.

Owing to the close connection between certain infectious diseases and ear trouble an arrangement is made by which notification is received of children who have suffered from ear discharge while in a fever hospital. The names of infants under school age are sent to the local medical officers of health for the necessary action, while children of school age are examined by the school doctors at intervals of six months, until at two consecutive examinations no symptoms of the disease are found. The number of cases reported was 398, of which 69 were forwarded to borough councils or other local authorities. Of the cases followed up at school, 4 were found on the first examination to have otorrhœa, one of these had cleared up on second examination. All the cases not cleared up are being kept under observation. Aural disease and scarlet fever.

It is reported that there is an increasing tendency on the part of employers to reject applicants with discharging ears.

The following-up of children found to be in need of treatment or special observation is carried out by the school care organisation, consisting of upwards of 5,000 voluntary workers aided and supervised by a staff of paid organisers. Children's care committees.

The voluntary workers are responsible for acquainting the school doctor with any particular difficulties with which the family has been contending, such as unemployment, lack of proper accommodation, illness, etc., any of which might help the school doctor in determining the action desirable in any particular case. Such action may not be confined to medical treatment under the Council's arrangements, but may require that use be made of other ameliorative channels which are not always under the Council's supervision.

In this way the Council's school medical service is brought into touch with other social and medical organisations with undoubted advantages to the children and their parents.

After a medical inspection the voluntary worker is expected to visit the homes of the children recommended for medical treatment (except where satisfactory arrangements can be made with the parents at the actual inspection or by written communication) and, if the parents do not propose to make other arrangements, are unable to afford treatment from a private doctor, and are willing to allow the child to be dealt with under the Council's medical treatment scheme, application is made by the care committee secretary to one of the five divisional treatment offices for an appointment at one of the centres or hospitals.

There are 143 paid organisers, including all grades. These organisers are divided into two groups—(1) those engaged on "general" work, i.e., recruiting, training and organising voluntary care workers, and (2) those engaged on medical treatment centre work. The majority of the organisers possess a social science certificate or a university degree, or both, and some have in addition a health visitors certificate or nursing training. At about 95 per cent. of the medical inspections in elementary schools a voluntary worker is present.

The treatment organisation is based on five divisions, corresponding to the five divisions of the school medical work. Each of the divisions is under the control of a divisional treatment organiser. The total paid staff allocated to the treatment side is 79 organisers. The actual units of the organising staff, treatment and "general," are, however, interchangeable between the "general" and the treatment sides.

As a result of the scrutiny of the organisers' work by an interdepartmental committee, it was considered that, as a rule, the organiser herself need not attend every dental inspection, but that instead an experienced clerk might assist the dental inspector. Putting into force this decision has rendered some economy possible.

Unfortunately many parents display considerable dexterity in avoiding things for their own and their children's good. Where the good offices of the voluntary worker fail, such cases are handed on for special visiting to the "special officer," a member of the divisional officer's school attendance staff.

Cases referred to the N.S.P.C.C.

If all this fails the school doctor issues a certificate in accordance with the provisions of section 12 of the Children Act, 1908, and the case is forwarded to the National Society for the Prevention of Cruelty to Children, which in appropriate circumstances undertakes prosecution.

During 1933, 547 cases, involving 629 defects, were reported to the Society: these included 345 dental defects, 188 vision cases, 60 nose and throat affections and 11 cases of ear disease or deafness. These figures are appreciably smaller than in 1932, except those for dental defects, which were 303 in 1932.

Difficulties of "following-up" resulting from the re-organisation of schools.

As the result of strenuous efforts the social care organisation has been most successful in the past year. More children needing treatment than ever before have obtained it. They have been shielded from the adverse influences of the times.

Amongst the difficulties encountered of late in following-up must be mentioned the Hadow reorganisation of schools. Here is an unappreciated result of that endeavour to promote the educational welfare of the children. The separation of the children of one family and their distribution in several schools has greatly hampered medical work.

The mother has to attend more inspections. The family can no longer be treated as a whole. Formerly it was possible to collect other members of a family in a school for inspection by the doctor when the mother attended, now that cannot be done. The following-up of families in consequence of inspections for cleanliness by the nurse must now be done piecemeal. Inquiries into outbreaks of infectious disease in the schools are also hampered, as contacts from the same family are often at different schools.

Medical treatment.

The arrangements made by the Council for the medical and dental treatment of school children have proceeded upon similar lines to those of the past few years.

There are 74 centres and 17 hospitals included in the Council's medical and dental treatment scheme. In addition to these the special centre for in-patient treatment of tonsils and adenoids at Woolwich, viz., the Cyril Henry centre, and the dental centre for the children resident at the King's Canadian camp school, Bushy Park, were continued. One new centre was opened at Streatham providing annually for 440 refraction cases, 660 minor ailments and 1,540 dental cases.

Reduction in numbers treated.

The number of defects dealt with under the Council's scheme has in all departments somewhat declined. On the face of it this result would appear to be a matter of congratulation as indicative of a healthier condition amongst the children.

To some extent at any rate this is true, but there are other factors which have affected the flow of cases to the hospitals and centres. Varying influences have contributed to the decline in the different treatment departments, but the exact weight of the particular influences is difficult to assign. There are, however, two influences which are universal, viz., (i) the decline in the school rolls, and (ii) the influence of economic depression. A third is the healthier condition of the children, to which reference has already been made, but this influence, whilst not being so universal, has had a marked effect in certain complaints.

The following table sets out the provision made and the actual numbers treated at the treatment centres during 1933 :—

Ailment.	Provision made in 1933.	Numbers treated 1933.	Numbers treated 1932.
Eye	42,068	40,434	44,172
Ear, nose and throat ...	19,317	14,145	17,364
Ringworm	465	178	224
Minor ailments (including nurses' cases).	78,595	110,600	112,177
Teeth	148,940	133,835	134,769
Total ...	289,385	299,192	308,706

The decline in numbers treated compared with 1932, amounts to three per cent. Considering the influences which have brought about this decline the following causes are disclosed :—

(1) *Decline in school rolls.*—As there are fewer children in the schools there is a reduced field of work which must in the long run reduce the gross number of defects. This can for a time be balanced by improved following-up. As the reduction of the rolls has been gradual over some years and the number of children treated has not shown a reduction until recently, this cannot explain to any great extent the sudden drop.

Owing to the very disproportionate numbers of children in the schools at the various ages, the number of children inspected has not been reduced *pari passu* each year with the general fall in the total numbers of the children.

It is only this year that the number of inspections has been reduced. These have now been reduced (from April, 1933) by about 4 per cent., staff having been given up to this extent. The influence of this reduction has acted through rather more than one half of the time under consideration.

It would be fair to suppose, therefore, that the drop in the figures for eyes and ears, to the extent of 2·5 per cent., may be ascribed to fewer inspections following on the decline in school rolls. Dental and minor ailments cases are not wholly or even largely dependent for their discovery on routine medical inspections.

(2) *Economy measures.*—The reduction in inspecting staff cannot be called a special economy measure as it was a natural corollary of the reduced numbers of children to be inspected, and it has therefore been dealt with above. Other economy measures introduced were :—

(*a*) Making the life of a voucher for eyes 12 months instead of 6 months. Formerly at many centres children were brought up at 6 monthly intervals for re-testing and counted as new cases. This practice has been discouraged, and in any case they are no longer counted as new cases. This, together with the decline in numbers on the roll, is held to account for the whole decline in children treated for defective vision. It is a paper decline and not a real one.

(*b*) Increased charges affecting chiefly children suffering from tonsils and adenoids and dental caries. There is reason to think that the increased charges have had but a slight effect upon the number of cases of tonsils and adenoids, but possibly a greater effect upon the number of dental cases.

(*c*) Alteration in the system of payment of grants. Formerly, with capitation payments to the voluntary committee, there was an irresistible urge in centres and hospitals with other departments to refer to the school medical department all cases of school children, in order that additional income should be secured. With the introduction of block grants in place of capitation payments the edge of this urge has been somewhat blunted. This may have tended to reduce the number of minor ailment cases. (Further reference to the block grant system is made later in this report).

Taking the classes of complaint in order :—

(i) Eyes.—It has been explained that reduction in medical inspection and abolition of the practice of counting certain children twice in the year explains the whole of the drop in children treated for defective vision. A certain number of the eye cases at hospitals consist of children suffering from external eye diseases, and remarks later upon minor ailments will apply to them.

(ii) Tonsils and Adenoids.—There has been an almost phenomenal drop in the number of cases of tonsils and adenoids, and this may be accounted for by a variety of causes :—

(*a*) The arrears which had accumulated owing to the fact that until three years ago there was insufficient accommodation have now been overcome owing to the use of the Council's appropriated hospitals for dealing with the excess of cases awaiting treatment.

(*b*) The decline in the number of children in the schools.

(*c*) Fewer children found by the school doctors, which may partly be accounted for by the overtaking of arrears already considered, but also probably on account of the children being generally healthier.

(*d*) The increased charge for operation (from 2s. to 5s.).

(*e*) The alteration in attitude of the profession, which is adopting a more cautious procedure before recommending operation under the influence of the Board of Education's medical department and other authorities.

With regard to (*a*) it may be mentioned that, up to 1929, it was not possible to deal with more than about 15,000 operation cases a year. With the help of the appropriated hospitals this number was increased during 1930 and 1931 to over 16,000 a year, with the result that the accumulation of cases was overtaken. The following statement shows the number of operations performed during the years 1928—1933 inclusive.

Year.	*No. of Operations.*	*Year.*	*No. of Operations.*
1928	15,036	1931	16,243
1929	14,904	1932	13,765
1930	16,215	1933	10,008

It is quite impossible to assess the relative effect of these various causes, but it would appear that causes (*a*) and (*c*) are most preponderant, in London at any rate.

(iii) Minor Ailments.—Two slighter influences have already been discussed, namely :—

(*a*) The influence of the block grant.

(*b*) The reduction of the numbers of children in the schools. This latter influence is independent of medical inspections, as the vast bulk of children suffering from minor ailments is not discovered by the doctors at routine inspections. A fall in school population should therefore mean a fall in the number of minor ailments suffered by the children. This, however, is masked by the considerable fluctuation in the incidence of these complaints from year to year. The chief influence in the decline of minor ailments this year is

(*c*) the healthier condition of the children. This may be either temporary or permanent. The past year has been exceptionally fine and sunny, and in former dry and sunny years a similar improvement has been recorded ; it must therefore be feared that the improvement is mostly climatic and may not be lasting. In a year like 1933 natural ultra-violet radiation must have had a powerful effect upon these conditions which are mainly external. There is, however, some hope that part of the improvement is permanent and due to better care and improved housing conditions—it is noticed that the fall in numbers is greater where housing conditions have improved, but even this may be only secondary to the climatic influences, which with better housing conditions would be able to operate to a greater extent. Even if the improvement is only temporary it is gratifying to know that the fall in numbers treated is due to the healthier state of the children.

The continued decline in ringworm tells the same tale, and is to be ascribed to a permanent increase in the standard of care and the continued exercise of efficient following-up by the nursing staff.

(iv) Dental Conditions.—The decline in the number of children treated for dental disease is not a matter for congratulation as it is known that there is a large percentage of children (about 40 per cent.) requiring treatment in the schools who do not get it. Year by year things have been improving, and better numbers have been secured. This improvement ought to continue. It is therefore not a question only of a drop compared

with last year, small though this is, but of a cessation of progress. This is in spite of the fact that the care committees have concentrated especially upon the following-up of dental cases during the present year. There is, however, reason to think that many more children are obtaining treatment outside the Council's scheme than formerly owing to the establishment of additional agencies, *e.g.*, municipal dental clinics and the Eastman clinic.

From some of the poorer districts there has come a suggestion that the increased charges have adversely affected the proportion of parents accepting treatment, and have increased the difficulties of persuasion.

At all times and in any circumstances (even if treatment is offered free) it is difficult to get the consent of parents and children to dental treatment, from which there is a special shrinking which is very widespread, and the real effect of the increase of the normal charge from 2s. to 3s. for extensive dental treatment (usually gas cases) is difficult to assess especially as the care committees are authorised to remit or reduce the charge whenever the circumstances warrant such a course.

New centre.

The new centre in Streatham was opened on 25th September, 1933. For some years past endeavours have been made to establish a centre in this district to meet the needs of the large new population of children on the housing estates which have been developed during recent years, but it has hitherto been impossible to obtain suitable accommodation at a reasonable rental. The new centre is greatly appreciated in the district, and is already working to its full capacity.

Block grants.

In the year now under review a change has been effected in the method of payments to hospitals and centre authorities in respect of facilities provided and work done.

Prior to 1st April, 1933, the system included *per capita* payments and varying special allowances in respect of such items as rent, use of premises for medical inspection purposes by the Council's staff, ionisation, accommodation for rheumatism supervision, and general maintenance. These varied according to the ailments dealt with, the overhead charges and local considerations. Since 1st April, 1933, these sundry payments have been commuted and block grants substituted. Under the old system it was evident that some of the centres more favourably situated were able to earn considerably more than was needed to maintain the centres, and had in fact accumulated satisfactory and sufficient reserve funds.

Under the new system it will be possible, by examining the financial statements provided by the local committees, by reviewing work done and by inspecting the premises to see that they are maintained efficiently, to adjust the block grants year by year so that efficient service can be rendered in return for financial assistance adequate to meet financial commitments, and at the same time to effect economy in expenditure by the Council. In certain instances, however, where it has not been thought desirable to apply the block grant system, payments on the *per capita* basis have been continued. These exceptions are the Charing Cross hospital, Eastman clinic (throat and scholarship cases needing dental treatment), London hospital (in so far as the treatment of ringworm cases is concerned) and Mildmay hospital.

Eye defects.

During the year 40,434 cases of eye defects were dealt with, compared with 44,172 during the year 1932. Spectacles were ordered in 29,382 cases, and were obtained in 27,292 cases. This represents 92·9 per cent., the best result hitherto obtained.

Ear, nose and throat.

The total number of cases dealt with in the ear, nose and throat departments was 14,145, compared with 17,364 during the year 1932. The number of throat operations performed was 10,008, compared with 13,765 during 1932. An analysis of the operation cases shows that in only 798 cases (or 7·97 per cent.) was the operation confined to tonsils, in 428 cases (or 4·27 per cent.) to adenoids, while in 8,782 cases (or 87·76 per cent.) both tonsils and adenoid growths were dealt with. Simple tonsillectomy apart from the removal of adenoid growths is therefore a comparatively rare operation.

Facilities at two of the Council's general hospitals, viz., Mile End and St. Charles', were utilised during the year.

With scarlet fever present in the population to a major extent, it has been found that there is a definite connection between the operation of tonsillectomy and the development of an attack of scarlet fever.

At the Cyril Henry centre a series of cases occurred in which scarlet fever supervened within the incubation period of the disease after operation. The introduction of the administration of anti-streptoccal serum was followed by the cessation of the occurrence of fever cases after operation. Particulars are given in the section of the report upon infectious diseases (p. 50).

Ringworm.

There is a continued reduction in the number of school children suffering from ringworm of the scalp. These have now sunk to the comparatively insignificant total of 178, compared with 224 during the year 1932, and 1,167 so recently as in 1925.

Minor ailments.

The number of minor ailment cases treated was 110,600, including 11,876 cases seen by nurses only. The total number of attendances made at the centres by these cases was 1,402,978. During 1932 the number of cases dealt with was 112,177, including 11,902 nurses' cases, and 1,471,005 attendances were made.

After-care clinic.

The after-care clinic for mastoid and otorrhœa cases at Leighton-road, Kentish Town, was formerly maintained by the Metropolitan Asylums Board, as part of St. Margaret's hospital, for dealing with the after-care of children who had been operated upon for mastoid disease at the Downs hospital, Sutton. A large number of children were referred from the school medical service for operation at that hospital. Mr. A. G. Wells, one of the Council's principal assistant medical officers, who supervises the aural work of the school medical service generally, personally undertook, by an arrangement with the Metropolitan Asylums Board, the supervision of the after-care of all the children at the centre, and undertook many of the mastoid operations at Downs hospital. Under the provisions of the Local Government Act, 1929, the functions of the Metropolitan Asylums Board were transferred to the Council, and from the appointed day until September, 1933, the arrangements at Leighton-road were continued as formerly.

The scope of the work has, however, gradually been enlarged and all cases of otorrhœa and ear discharge amongst children at the transferred schools have also been dealt with at the clinic. For this purpose those children requiring treatment were temporarily transferred to the Andover children's homes, Holloway. This arrangement has proved most successful and valuable as a considerable number of the children in the transferred schools and homes who suffered from chronic otorrhœa have been cured by the special treatment provided, including ionisation. The situation of the centre in Kentish Town was however not suitable geographically, as children operated upon at Downs hospital came from all districts of London ; and, as they often required frequent visits for after-care, considerable hardship was caused particularly to those living in south London. The closure of the Andover homes in June, 1933, made it still more necessary to secure a more central situation for the centre, so that children from the transferred schools could attend for oversight and treatment. By a re-arrangement of the work in the general and special hospitals, Mr. Wells no longer undertakes the mastoid operations at the Downs hospital, but he continues to work at the after-care clinic which has now, with the consent of the Board of Education, been transferred from the jurisdiction of the special hospitals division to the school medical service.

New accommodation for the after-care clinic has been acquired at St. George's dispensary, 86 Blackfriars-road, S.E.1., which is very central and accessible from all parts of London. The work was transferred to the new premises in September, 1933.

Dental treatment

There are 69 dental treatment centres under the Council's scheme. These include the Eastman clinic and the centre at the King's Canadian camp school, Bushy Park. In addition there is a special experimental centre at Berkshire-road school, to which reference is made later. A new centre was opened in September, 1933, at Streatham.

The number of sessions devoted to dental inspection in the schools by the 68 inspecting dental surgeons was 2,468. The number of children dentally inspected was 275,213, compared with 273,737 during 1932.

The number found to require treatment was 175,559, or 63·8 per cent. During 1932 the comparable figures were 174,809, or 63·86 per cent.

So far as treatment is concerned, the total number dealt with at the 69 centres, including those from the schools allocated to the Eastman clinic (3,405) and Berkshire-road (617) was 133,835, compared with 134,769 during the year 1932. In addition there were 5,630 children from unallocated schools treated at the Eastman clinic.

The scheme under which dental treatment is undertaken by the authorities of the Eastman clinic without charge to the Council was continued during the year. There are 16 schools (12 Council and 4 non-provided) within easy access, which have been allocated to the clinic for this purpose.

The whole of the work, including the inspection in the schools, the arrangements for the attendance of the children and their parents, and the treatment, is undertaken by the authorities of the clinic, but one of the Council's assistant organisers is engaged in connection with the clinic in order to co-relate the work with the care organisation. During the year 1933, the total number of children dealt with from the schools concerned was 3,405.

The Eastman clinic also dealt with scholarship and central school cases from any district in London, who may elect to attend for dental treatment, and in such cases a capitation fee of 7s. a case is paid by the Council. During 1933 the number treated was 23.

Special dental scheme at Berkshire-road school.

Following the closure in 1932, of the special dental centre at 22, Gainsborough-road, Hackney Wick, which was established in 1929 and financed by the Manor Charitable Trust, the work was carried on by the Trust at a small surgery specially equipped in the myope department of the Berkshire-road school. The new surgery was opened on 6th March, 1933, and children in attendance at the Berkshire-road school only are dealt with. The work is mainly confined to prophylactic and conservative treatment together with simple extraction. No general anæsthetics are used. Any cases requiring such treatment are referred to the ordinary dental treatment centres. Two dental surgeons attend the surgery, each on two sessions a week. The object the Trust had in view in promoting this experiment was to endeavour to demonstrate that the most efficient and economical method of dealing with the problem of dental treatment was to establish a small dental surgery at each school, where the children from the school could be dealt with on the spot, and thus save considerable-time in travelling to and from the centre, in following-up, and loss of school attendance. All the children in the school could be seen, and where necessary, treatment given in the school surgery. Eventually a complete oversight of the whole school with a healthy condition of the mouths would be obtained.

At the outset the promoters of the experiment were fortunate in the selection of the school, in that they had the hearty co-operation of an energetic and sympathetic head master, and there is no doubt that the scheme would have been fully effective and completely successful if compulsory dental treatment had been possible. This however is not possible, and refusals of parental consent in this, as in all schemes of dental treatment, has proved the stumbling block to complete success.

There are about 1,000 children in the school, and during the period from the commencement of the scheme in March to the end of July, 1933, the number of children treated was 584; 844 attendances were made; 256 temporary and 175 permanent teeth were extracted, and fillings in 64 temporary and 775 permanent teeth were inserted. By this time the whole of the treatment required by children, whose parents had given consent, had been completed, and from the end of July until December, 1933, it was necessary to close the surgery because there were no more cases forthcoming for treatment. At the same time there were some 400 children in the school, *i.e.*, about 40 per cent. of the whole school who could not be seen or treated as the consent of the parents could not be obtained or had been refused.

With renewed efforts and further following-up additional cases were forthcoming, and the surgery was re-opened on 6th December, 1933, but the services of the two dental surgeons were only required on one session a week each. During the month of December, 33 children were dealt with and they made 50 attendances.

There is no doubt that under this system a considerable amount of school time is saved, but it is evident that, so long as it is necessary to obtain the consent of parents to treatment, such a scheme cannot be brought to fruition, with the consequent uneconomical use both of the facilities available and of the services of the dental staff. It should be mentioned that no charges to parents for treatment are made under this voluntary scheme. The Council's own scheme of dental treatment is handicapped, in comparison with this smaller experiment, by the necessity for making charges to the parents, but a consideration of the proportion of children remaining untreated suggests that it is not so much the charges after all that act as a deterrent, but rather the apathy of the parents and the repugnance of the children to the dental chair.

Dental Board travelling exhibit.

Much dental propaganda has been undertaken in connection with the schools by the Dental Board of the United Kingdom.

The Board at their own expense have supplied travelling exhibits which consist of a series of models showing the development and eruption of the teeth, their structure and the diseases to which they are prone. Permission has been given for the Board's demonstrators to visit schools in certain selected areas during school hours. It has now been arranged that, so far as possible, the demonstrations shall take place just before dental inspections are due to be held by the inspecting dental surgeons in particular schools. It is found that the children are extremely interested both in the lectures and in the exhibits; and it was thought that, by following up with dental inspections immediately after the demonstrations, a considerable number of additional children would subsequently attend the centres for treatment. During the year these demonstrations have been held in four divisions of London; but, from the evidence which has been obtained, no marked increase in the numbers treated at the centres in these divisions has been apparent. It would almost appear that in London all persuadable people have already been converted to the practice of dental hygiene, and that a cohort of angels even would fail to make an impression on those who obstinately remain outside the scheme.

Nevertheless the useful purpose served by these demonstrations in propagating knowledge relating to the care of the teeth and dental hygiene generally cannot be gainsaid, even the faithful require reinforcement of their faith from time to time, and the demonstrations are continuing.

Charges to parents.

For many years the prescribed charge made by the Council to parents in respect of medical and dental treatment of school children was 2s., covering all necessary treatment for a period of 6 months. In the case of minor ailments free treatment has been given for the first fortnight after which 1s. is charged, and,where slight treatment only has been given in dental cases, the charge has been 1s. The charge for operative treatment of enlarged tonsils and adenoids was increased from 2s. to 5s. in April, 1932. All children operated on under the Council's scheme are retained in the various centres as in-patients. Parents appreciate the care and attention given to their children in the wards, and it was found that some were desirous of giving more than the amount charged, as a mark of their appreciation. In those dental cases where extensive treatment is undertaken, including the administration of an anaesthetic, the charge was increased to 3s., the normal charge for ordinary cases remaining at 2s. The aim of the dental service is to secure that the children commence treatment in the early stages of dental decay, when teeth can be saved. Accordingly, with a view to encouraging early treatment, 1s. only has been charged when slight treatment only has been necessary. The average cost to the Council of dental cases is approximately 7s. per case.

Although there has been some falling off in the number of cases treated, the total amount collected from parents has increased. So far as those parents who are

unable to pay are concerned, it is made clear to them that the care committees will reduce the charge by 50 per cent., or remit it altogether.

The " slight-treatment " cases in the dental departments, in which the charge of 1s. is made, numbered, in 1933, 13,393 an increase on the figures for 1932, when they amounted to 12,510.

No charge is made for refraction of the eyes in the case of defective vision. This is looked upon as an extension of medical inspection rather than as treatment.

The cost of spectacles however in the case of children attending elementary schools (but not special schools where the Council bears the cost) falls upon the parents, assisted where necessary from voluntary funds.

London Central Spectacles Committee.

The care of the children in this respect is supervised by the voluntary London Central Spectacles Committee, who, in their twelfth annual report, for 1932, pointed out that throughout a year of exceptional difficulty the local spectacles committees have carried on their work ; and, in spite of the general depression and the consequent falling off of subscriptions and donations, only three calls were made upon the central fund, one of which was to start a new committee.

The figure for that year showed a drop in the number of spectacles obtained ; this was disappointing, but understandable in view of the bad times. The percentage 88·6 of the spectacles ordered, was the lowest since 1926, and it was hoped that the lost ground would be regained in the succeeding year.

It was considered that the fall in the number might be accounted for to some extent by the present fashion for Windsor frames (a mixture of rolled gold and shell), which are more expensive and are very attractive to the older children, many of whom refuse to wear the ordinary nickelled-steel. There is a growing demand for these luxury frames, and this frequently delays the supply of the spectacles for several weeks when the parents cannot afford to pay the money down, as spectacles committees will not give loans or grants in these cases. Every effort is made to dissuade the parents from this unnecessary extravagance, but the child is often the deciding factor.

The falling off in 1932 led to redoubled efforts on the part of the care committees in 1933, and the hope that the lost ground would be regained was amply fulfilled, as in the latter year the percentage of children obtaining spectacles who needed them was 92·9, the highest ever yet achieved.

Year.	Number of spectacles ordered.	Number of spectacles obtained.	Percentage.
1923	23,577	21,357	90·5
1924	24,573	21,338	90·5
1925	25,555	22,757	89·8
1926	26,718	23,593	88·3
1927	28,726	26,086	91·0
1928	28,977	25,887	89·3
1929	29,212	26,993	92·4
1930	29,846	27,264	91·3
1931	30,151	27,939	92·6
1932	29,548	26,200	88·6
1933	29,382	27,292	92·9

The local spectacles committee is usually a sub-committee of the local association of care committees.

The help given takes the form of a loan or a grant (or both), according to the circumstances of the case. Parents requiring help apply to the care committee, who make the application to the spectacles committee and are responsible for the collection and repayment of loans.

Subscribers to certain organisations can obtain help to pay for spectacles. These organisations are the Hospital Sunday Fund, which requires a letter of recommendation from the vicar of the parish or the minister of the free church ; the Hospital Saturday Fund, which requires the subscriber to obtain a letter of recommendation

from the honorary collector to whom he pays his contributions; and the Hospital Savings Association, a subscriber to which is given, by the optician, a form which has to be filled in by the group secretary and returned to the optician with the balance of the money. The benefit in this case is half the cost of spectacles in ordinary frames.

When parents are in receipt of out-relief glasses can be obtained through the Public Assistance Committee.

The treatment of squint.

There are two special arrangements for the treatment of squint in the Council's scheme.

At the Belgrave hospital for children an operation centre is maintained at which operations for advancement of the external rectus muscle of the eye are performed in cases of obstinate squint. At the Paddington school treatment centre a "squint class" has been carried on for 16 years under the direction of Dr. Thornett. The committee of the centre has forwarded the following report by Dr. Thornett upon the work of this class:—

Work of the squint clinic.

The squint clinic began in 1915, when I was ophthalmic surgeon to the Children's hospital in Harrow-road. It was held during the ordinary ophthalmic clinic, making this a very arduous task, until the Council, in 1917, started the clinic of its own, enabling one to put all one's energies into the special treatment required.

A squint of the kind treated in this clinic is produced when one eye only focuses on an object, the other turning in towards the nose or out towards the ear, ignoring the object seen by the focussing eye. The inturning squint is much the most common, and is usually accompanied by loss of vision of the squinting eye from disuse. Sometimes the loss is not great, but in the majority of cases vision is reduced to a degree which makes the eye useless for all practical purposes if, at a later time, the sight of the good eye is injured or lost. Moreover, when the eye turns in towards the nose, the patient is in the position of a man with only one eye, as he is aware of nothing on that side of the body. This makes it dangerous for him to go into any occupation where accidents are liable to happen.

A large number of the cases have a vision as low as 6/36 or 6/60, but some have even less than this, central vision being entirely lost. It is hardly necessary to stress the tremendous handicap it is to a young man with vision only in one eye. The army, navy, police, railways and engineering machine shops are all closed to him. Factories where machinery is used are dangerous for such a man, and driving a car or other speedy vehicle is dangerous both to himself and others. Even if the sight of the squinting eye is good, the loss of the field of vision is just as great if the squint is very pronounced.

The aim of the clinic is two-fold—firstly to restore the sight of the squinting eye, and secondly to teach the squinting eye to co-operate with the good eye, and to focus on the same object simultaneously, and thus to become straight.

The causes of squint are both predisposing and direct. Most animals have no binocular vision, each eye taking care of the corresponding field of vision. Binocular vision in man is therefore a recent acquisition, comparatively speaking, and is more liable to be deficient than the older powers, and it is probable that the centre in the brain which controls the power of binocular convergence is deficient in certain cases. This explains the occurrence of squint in children, with little or no error of refraction, and the hereditary appearance of squint in families.

Another predisposing cause of squint is error of refraction. When the sight is deficient owing to this cause, the child finds great difficulty in bringing both eyes to bear on the same object, especially if the error is greater in one eye. Relief is experienced by turning the eye with the greater error into the corner, and a habit of squint is quickly formed. In a small number of cases where the squinting eye has not lost much vision, glasses alone have been found to cure the squint.

As to direct causes, anything which upsets the equanimity and health of the child may precipitate matters and cause a squint, such as fright, shock, pain, illness, strain as in coughing, the strain of starting school-work.

It is a thing worthy of remark that nearly all the patients in the squint clinic are mouth-breathers. This is not to imply that mouth-breathing directly produces squint, but the ill-health, and especially the chronic catarrh which is so frequent an accompaniment of mouth-breathing, is directly responsible for the precipitation of squint. I find that it is essential to cure this bad habit in the treatment of squint, and that those who are recalcitrant are very much more difficult to treat.

The error of refraction having been carefully corrected in the refraction clinic, the child is transferred to the squint clinic for treatment to restore the sight of the squinting eye. Vision with glasses is tested, and where the visual acuity of the squinting eye is found to be less than that of the good one, a cover of paper is gummed over the glass of the straight eye, forcing the squinting eye to work. The eye comes out of its corner, and, if the glasses are constantly worn, and the good eye not used, a slow but sure improvement in sight is obtained. When the sight

of the bad eye is 6/9, a film of soap is applied to the glasses instead of the paper, a stage of progress which gives great joy to the small patient and to the parents. The good eye is not uncovered until the sight of the bad eye is equal in every respect to that of the good one.

Treatment to teach eyes to act together is carried out by exercises with the amblyoscope, an instrument with two bent tubes, each holding a picture of a different kind. The patient sees one object with each eye. One object may be a bird, the other a cage. By shifting the tubes to and fro, the images coincide, and, if the patient can "get the bird in the cage," he is said to have binocular vision *at that point.* Other images are put on, increasing in difficulty, and, by moving the tubes, the muscles of the eyes controlling convergence and divergence are exercised, and the eyes gradually learn in this way to focus on the same object simultaneously, and the eyes become straight.

The average length of time taken to restore sight in children is as follows :—to vision 6/60, 13 months ; 6/36, 12 months ; 6/24, 9 months ; 6/18, 7 months. In children with less than 6/60 and with loss of central vision, the average time taken during the five years preceding 1932 was 18 months, but in the earliest cases the average time was 21 months. It can be said with certainty that if the treatment is carried out well, it is always attended with success. Failures are comparatively few, and have been due in most cases to the opposition or carelessness of the parents. A few children come without the parents, being brought by brothers, sisters, friends, or coming with other children from the same school, and it is among these that failures chiefly occur. Some failures also occur in children who are of a very low order of intelligence, or who develop late. The fact that the average time taken in the earliest years of the clinic was greater than that in the later ones shows that experience in the treatment is of primary importance. The cases of 1932 and this year show an even greater improvement, but, as they are unfinished, it has been thought unwise to include them.

When squint is associated with extremely deficient vision in the bad eye, it is sometimes found advisable to interrupt the treatment for six months, when the child will return older and wiser, and keener on getting cured. When the child is considered to be cured, with no squint either with or without the glasses, he is discharged for six months. On returning, the vision of each eye is taken, fresh refraction ordered if necessary, and, if the vision has deteriorated, as it occasionally does, the treatment is repeated. The further treatment usually occupies only a few weeks or a month. If all is satisfactory, the child is discharged for a year, and if at the end of that time the squint is still absent, he gets a permanent discharge.

Cases of alternating squint are in a minority. They usually have a very large squint and a very slight error of refraction, and occur very early in life. They are extraordinarily difficult to cure. They do not lose the vision of either eye, because the eyes alternately take on the work of looking. Exercises have to be begun at once, and it may be years before the child is able to get binocular vision at any point. The brain seems to be unable to attend to more than one image at a time, so that when looking through the amblyoscope, first one image disappears, then the other. Even when binocular vision is established, and a tremendous range of convergence is obtained, the squint may be as marked as ever. My greatest failure is a girl of 13 who has attended regularly since she was five years old. She can do all the exercises better than anyone else, but the squint is still a large one. These cases have to be operated upon when the patient is older, and after a prolonged course of these exercises the operation is nearly always successful. If, however, the operation is done before squint-training, the result is usually a failure.

When the clinic was first started, I found the greatest difficulty in persuading the parents to pursue the treatment. They disliked the patch ; they could not understand that an eye, apparently normal, was unable to see. They said : "When the glasses are off he can see quite well," which, of course, was true, because he was then using the good eye. They were unwilling to take the trouble of looking after a child who was, in the first month or two, nearly blind. In the first two years of the clinic, those cases which were failures were the result of the parents' unwillingness. Gradually, however, as the clinic became known, the people in the neighbourhood realised the value of the work, and whereas, in those years, one had to spend half an hour explaining to the mother the danger and loss to the child, nowadays one has merely to indicate the treatment to her, and to concentrate on gaining the co-operation, interest and consent of the child. This is just as important as that of the mother. His interest, ambition, pride, vanity, and even greed are all called upon, and he is promised a prize if, and when, he is able to have the patch off on gaining good vision. One little boy, coming from a terrible home with a witless mother and obstinate father, was so impressed by the necessity of wearing his patch that he actually fought with his father for the right to wear it.

Some ophthalmic surgeons are content to see the children once in two or three months. I find that this is quite useless. One must have them up once a week at least in order to see that the eye is kept covered, that the child does not "peep" out of the covered eye, and to gain his interest and confidence. If this is not done, when the time comes for training, he is frightened or uninterested, and will romance as to what he sees ; and, as one is entirely at the mercy of the child in this respect, one has to teach him to speak the truth, which he usually does if he has no fear of the doctor and nurse. The weekly encouragement, the word of commendation or of censure must not be foregone. Moreover, children have to be taught to close the mouth, and to learn to breathe through the nose. As stated above, the vast majority of these patients are

mouth-breathers, and it is essential for a cure of the squint that they should learn to breathe properly; this can only be done by reminding them every week of this bad habit. Prizes are also given, in very bad cases of mouth-breathing, for success in curing themselves, for I do not advise the removal of adenoids and enlarged tonsils in these cases. Any operation is liable to give a set-back to the progress of a squint case, and should be avoided whenever possible. The mothers are told of the evil results of mouth-breathing, and help the children at home, while in some of the schools the teachers are most helpful in the same way.

Aural clinics.

Mr. A. G. Wells is responsible for the oversight of the work of the school medical service so far as it relates to the care of the ears and hearing of the school children. The following is the substance of his report:—

There has been no change in the personnel of the staff during the year.

Statistics.

The following tables give the figures for the otorrhœa and the deaf cases treated at the special aural clinics, and returned by the divisional treatment organisers for the year:—

TABLE I—*Otorrhœa cases.*

Division.	Total no. of examinations made.		New cases.		Cases carried over from 1932.		Old cases returned.		Cases examined, but no treatment required.		Cases cured.		Lost sight of.	
	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.
N.E.	2,724	3,172	265	297	59	67	212	249	46	46	338	394	64	66
S.W.	3,812	3,863	401	545	148	189	247	280	72	143	475	565	48	59
S.E.	4,205	5,010	340	419	161	195	246	292	31	56	534	646	51	62
N.	3,780	5,152	337	444	169	200	226	263	61	99	434	495	85	96
N.W.	2,564	3,240	227	298	109	131	120	136	29	46	258	311	37	50
Total	17,085	20,437	1,570	2,003	646	782	1,051	1,220	239	390	2,039	2,411	285	333

From these figures it will be seen that each child averaged five attendances.

TABLE II—*Deaf cases.*

Division.	Total no. of examinations made.		New cases.		Cases carried over from 1932.		Old cases returned.		Cases cured.		Cases partially relieved.		Cases unrelieved.		Cases requiring no treatment.		Lost sight of.	
	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.	Patients.	Ears.
N.E.	91	158	24	44	—	—	3	5	14	24	1	2	1	2	3	5	1	2
S.W.	164	303	15	27	13	23	5	8	7	12	6	11	—	—	2	4	4	8
S.E.	221	399	30	56	25	43	5	7	23	42	5	10	1	1	3	6	1	2
N.	192	372	23	42	16	32	1	2	12	22	5	9	1	1	4	7	3	5
N.W	270	491	28	52	8	16	1	1	1	2	10	18	3	5	2	4	12	20
Total	938	1,723	120	221	62	114	15	23	57	102	27	50	6	9	14	26	21	37

From these figures it will be seen that the percentage of "cases cured" was 34·5, partially relieved 16·9, unrelieved 3, the remainder being still under treatment at the end of the year; and that each child averaged approximately 4½ attendances.

In addition to the above, 90 cases of nasal defects were also treated.

The following table gives a detailed analysis of all the cases of otorrhœa treated, and shows the number of acute ears, the cause of the persistence of discharge in chronic ears, the number cured, the number requiring operation, those lost sight of, and the number still under treatment on 31st December, 1933. This table includes the otorrhœa cases of the children from residential schools.

TABLE III—*Analysis of Otorrhœa cases.*

Cause of suppuration.	Total ears.	Cured.	Referred for mastoid operation.	Lapsed.	Still under treatment.
Acute otitis media suppurativa	260	219	3	—	38
Chronic otitis media suppurativa due to					
(I) TYMPANIC CONDITIONS					
(*a*) Tympanic sepsis (T.S.) simply ...	1,705	1,295	5	79	326
(*b*) T.S. + granulations	231	124	27	24	56
(*c*) T.S. + polypi	47	28	4	2	13
(*d*) T.S. + caries	20	4	—	—	16
(*e*) T.S. + other conditions	6	6	—	—	—
(II) TYMPANIC CONDITIONS +					
(*a*) Unhealthy tonsils and adenoids...	198	141	—	7	50
(*b*) Nose conditions	237	181	—	10	46
(*c*) Mouth conditions	—	—	—	—	—
(III) TYMPANIC CONDITIONS +					
(*a*) Attic disease	92	25	29	8	30
(*b*) Mastoid disease (no operation yet done)	173	8	148	4	13
(*c*) Mastoid disease (operation already done)	593	317	36	39	201
(IV) TYMPANIC CONDITIONS +					
(*a*) External otitis	37	24	—	2	11
(*b*) Stricture of meatus	2	2	—	—	—
External otitis	127	106	—	2	19
Total	3,728	2,480	252	177	819

From these figures it will be seen that the percentage of "cases cured" is approximately 68.

After-care clinic.

Owing to the closing of Andover children's homes, the residential school otorrhœa cases are now housed at Norwood children's home, and attend for treatment at the after-care clinic which is now at St. George's dispensary, instead of at Leighton-road. The following are the details of the cases :—

Total number of ears treated	174
,, ,, ,, cured	146
,, ,, ,, referred for mastoid operation	9
,, ,, ,, lost sight of	2
Still under treatment on 31st December, 1933	17

These figures show that 84·8 per cent. of the cases were "cured."

In addition to these cases of otorrhœa, there were a number who attended and were found to be free from ear discharge. The following are the details :—

Children requiring no treatment	13
,, ,, operation for tonsils and adenoids	1
,, ,, ,, ,, adenoids	1
,, ,, removal of wax	1

The details of the work done at this clinic are as follows :—

Number of attendances of ear, nose and throat cases ...	6,051
„ patients treated—506, representing	582 ears.
Number of ionisation administrations	1,872
„ ultra-violet irradiations	167
„ dressings	3,975
Number of ear patients treated after mastoid operation ...	229 = 259 ears.
„ other ear patients treated	277 = 323 ears.

The following are particulars of new patients discharged from Downs hospital during 1933 :—

	Patients.	*Ears.*
No treatment required	17	17
Treated at the Council's clinics—now well	7	7
Treated at after-care clinic—now well	92	105
Still under treatment at after-care clinic on 31st December, 1933	54	60
Still under treatment at the Council's clinics on 31st December, 1933	13	13
Referred back for further operation	5	7
Lost sight of since	12	15
Total ...	200	224

The following are particulars of the cases referred from Downs hospital in 1932, and continuing treatment into 1933 :—

	Patients.	*Ears.*
Referred back to Downs hospital for further operation ...	7	8
Treated at after-care clinic—now well	37	41
Still under treatment on 31st December, 1933	2	3
Transferred to the Council's clinics in 1933	2	2
Lost sight of	1	1
Total ...	49	55

In addition to the above the following are particulars of cases which were discharged from Downs hospital in 1932, but went to the Council's clinics and continued their treatment into 1933 :—

	Patients.	*Ears.*
Treated at the Council's clinics—now well	6	7
Still under treatment at the Council's clinics	7	8
Lost sight of	4	5
Total ...	17	20

Audiometer.

One of the features of the past year has been the regular audiometric work done in the elementary schools. One session a week has been devoted to this work. All the children of a department are given a test which is described as test No. 1. Those who fail to satisfy this test are given a second test—test No. 2. As a rule, a certain proportion of the failures in test No. 1 satisfy test No. 2. The failures in test No. 2 are then given a clinical examination to find out what is the cause of the hearing defect. A certain proportion of these will be found to benefit by some form of treatment. This treatment is recommended and an endeavour made to obtain it. After the treatment is completed, a further test—test No. 3—is given. The result of this test shows what result, if any, treatment has had on the defect present. A child who shows a hearing loss of nine or more sensation units on the decibel scale in either ear is regarded as not satisfying the tests. I have recorded the results in graph form, which gives a much clearer reading than masses of figures.

The graphs here presented represent the examination of 2,083 children.

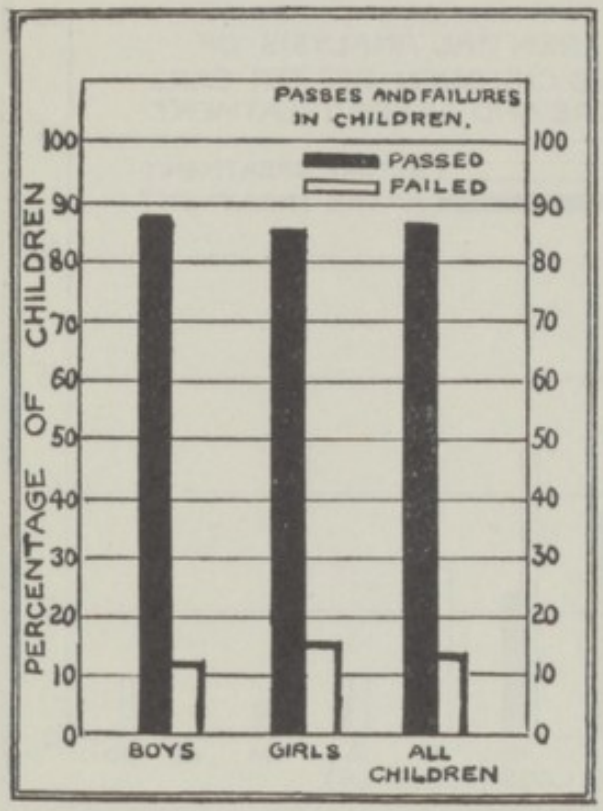

FIG. 1.

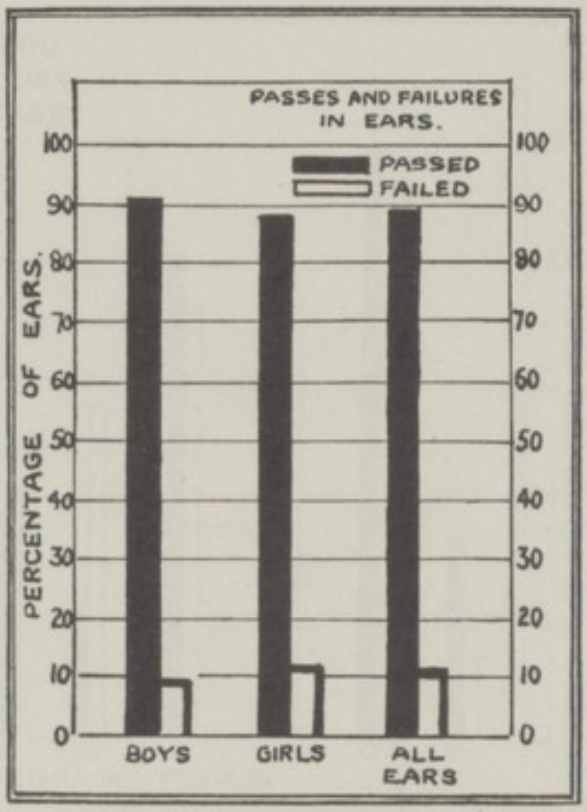

FIG. 2.

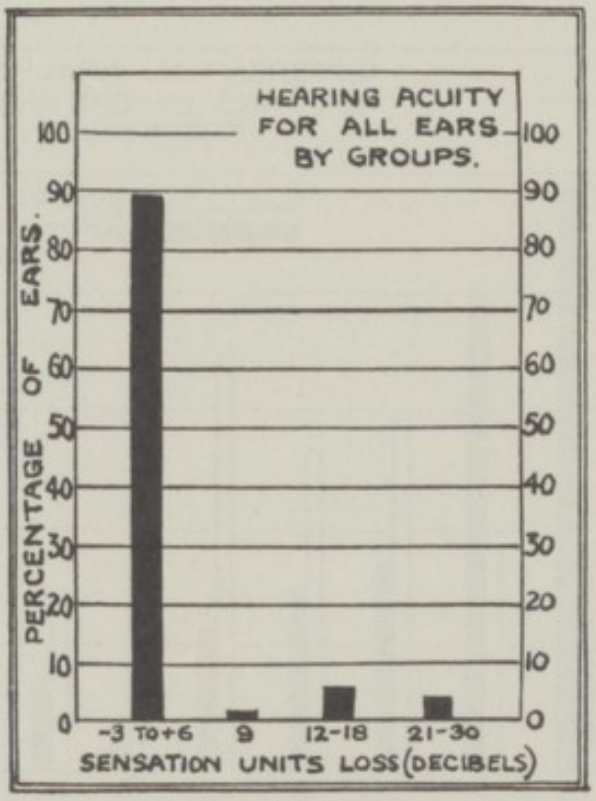

FIG. 3.

Fig. 1 indicates the percentage of passes and failures of boys, girls and all children in three separate groups.

Fig. 2 shows the same thing in "ears" instead of children.

Fig. 3 shows the hearing acuity for all ears by groups. I have divided these into four groups:—(1) −3 to +6, which represents all the passes, (2) a separate group of the +9, this group being what may be described as the "border-line failure group," (3) 12 to 18, and (4) 21 to 30.

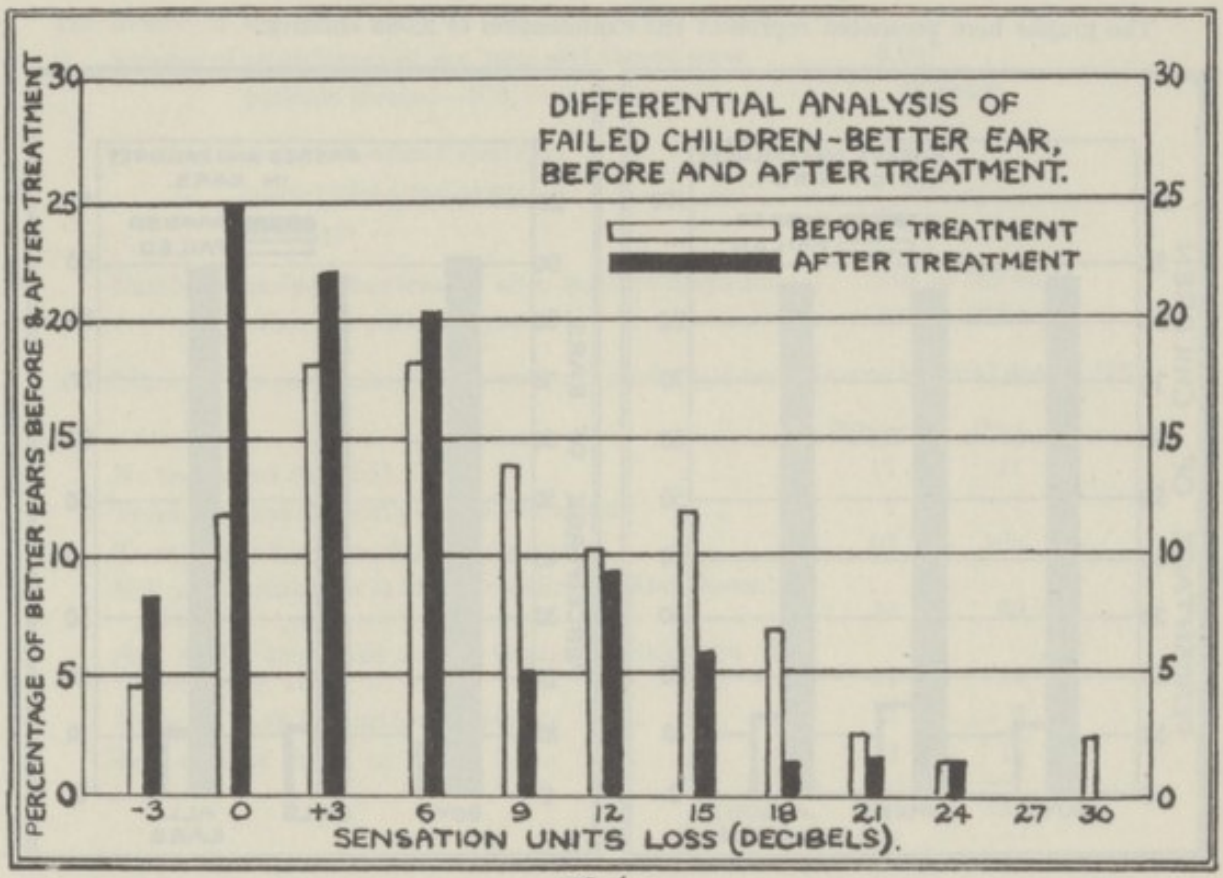

FIG. 4.

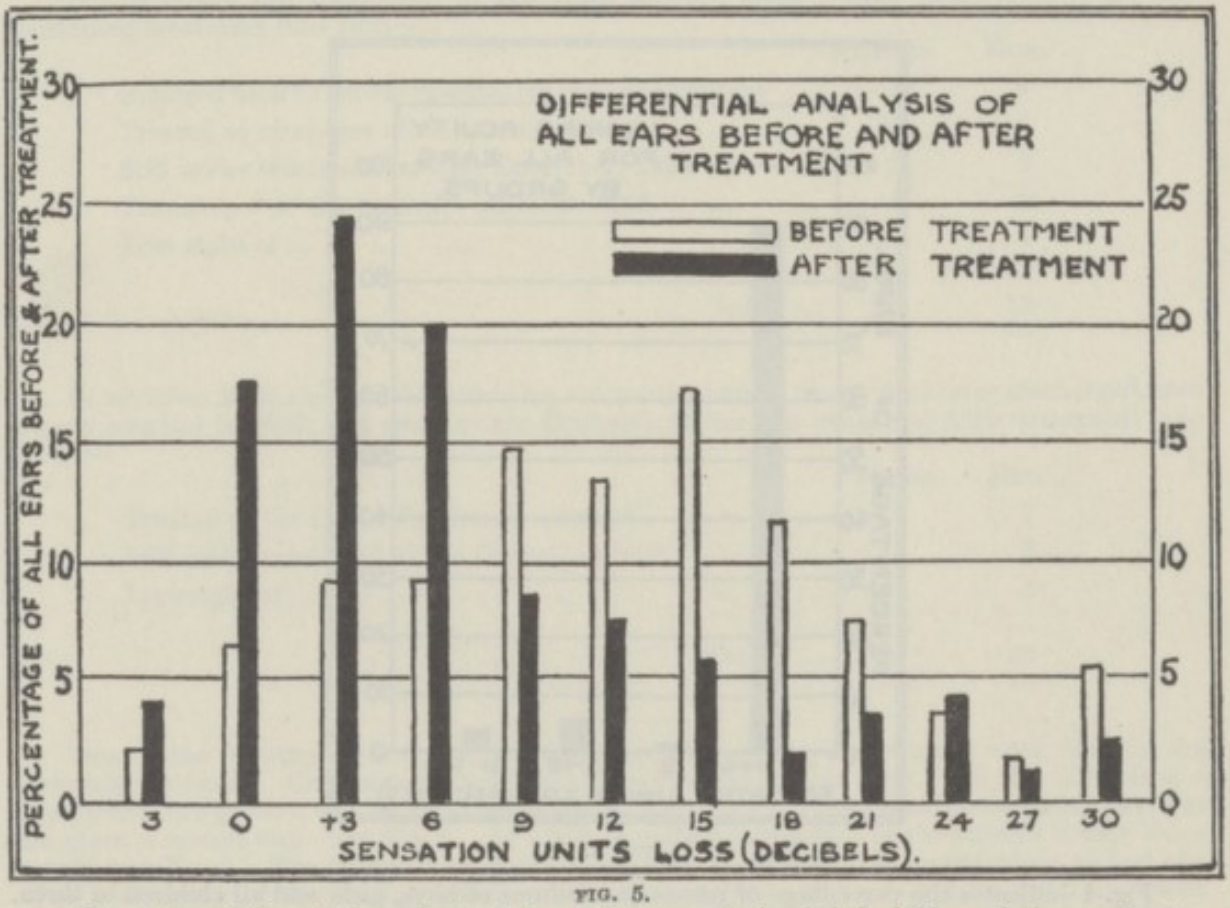

FIG. 5.

Fig. 4 is a differential analysis of the better ear of the failed children, before and after treatment. It is a guide to the educational impairment existing, but modification of education for individual children depends on whether deafness persists after treatment.

Fig. 5 is a differential analysis of all ears before and after treatment.

A study of the graphs shows many interesting points, one of the most important being the improvement indicated after treatment.

The value of audiometric examination is beyond dispute, many of the smaller degrees of deafness, especially unilateral deafness, being discovered, which would otherwise escape notice. A certain proportion of these can be remedied by timely treatment and the hearing saved. Neglect of early treatment frequently means permanent and progressive deafness. I consider that the work should be extended, but the present system would need some alteration. It is not necessary that the routine testing should be carried out by an otologist. This could be done quite conveniently by a nurse, while the otologist would be required for the clinical examination and treatment. The larger the number of children tested, the larger would the number of clinical examinations and consequent treatments become. Further, the procedure is not without its difficulties, which commence with the clinical examinations of the failures of test No. 2. Not all the children attend for this examination at present, and, further, those requiring treatment cannot all be treated "on the spot." Some may require an operation for tonsils and adenoids, others treatment for otorrhœa, some regular inflation, but in any case the lengths of the treatments vary, and after the completion of treatment each child must have test No. 3. It will be seen that test No. 3 cannot be carried out on all the children at one time as is the case in test No. 1 and 2. This complicates the work considerably. Efforts are, however, being made to encompass these difficulties, but it may be necessary to recommend some modification of the arrangements in due course.

The result of tests in this group of children showed that 86·3 per cent. had less than nine sensation units loss of hearing, and 13·7 per cent. had nine or more sensation units loss. The figures for ears instead of children was 89 per cent. with less than nine sensation units loss, and 11 per cent. with nine or more.

The clinical defects found amongst the children with nine or more sensation units loss on the second test embraced the following:—

Catarrhal changes in ear	92
Otorrhœa	46
Wax	26
Nothing found	23
Tonsils and adenoids	17
Eustachian obstruction	11
Colds at time of test	11
Dry perforation of tympanic membrane	5
Nasal defects	5
Scars in tympanic membrane	4
Old mastoid operation (dry)	2
Old mastoid operation (wet)	1
Absent auricle	1
External otitis	1
Nerve deafness	1

Stammering children.

At the eight centres maintained for the treatment of stammerers a total of 382 children attended during the year; of these, 115 were discharged as cured, while 59, many of whom had greatly improved, left for various reasons.

The arrangements are on the following lines (i) each child attends twice weekly for periods of 50 minutes each; (ii) each group of children is limited to 9; and (iii) 3 groups are dealt with by the same instructress on each half day.

Dr. E. J. Boome has reported as follows:—

Statistics.

Enquiries have been made into the familial distribution of stammering incidence. The results are given for each centre in the following table. Of 455 cases investigated, 273 were found to have another member of the family who suffered, while in 174 cases this member was an immediate relation.

Statistics of Stammering in Families.

Centre. (1)	Number of cases. (2)	Mother. (3)	Father. (4)	Sisters. (5)	Brothers. (6)	Grandmothers. (7)	Grandfathers. (8)	Aunts. (9)	Uncles. (10)	Cousins. (11)	No stammer in family. (12)
Allen-street	50	7	10	1	2	—	—	2	3	—	25
Amberley-road	53	3	12	1	5	—	4	2	2	3	21
Crawford-street	50	2	5	3	7	1	2	2	6	2	20
Holbeach-road	63	6	9	4	4	—	2	4	8	3	23
Jews' Free	53	3	8	2	8	—	1	1	9	1	20
Laycock	67	3	8	2	10	1	—	3	11	2	27
Oldridge-road	57	5	8	5	10	1	1	1	1	1	24
Redmans-road	62	3	9	3	6	—	3	4	7	5	22
Total	455	32	69	21	52	3	13	19	47	17	182

Looking at the above table it will be seen that the male predominates. Of 455 consecutive cases 182 had no stammer in the family. With regard to the nearer relationships in columns (3) and (4), only 101 out of 455 cases occurred, and this confirms the opinion that stammering is not usually directly inherited. Columns (7), (8), (9) and (10) are much more in agreement with the view that the child inherits peculiar neuropathic tendencies which predispose him to stammering, rather than that the actual stammer is inherited. Columns (3), (4), (5) and (6), (174 cases) are rather against the view of Firshaw, who asserts positively that imitation and not heredity is the essential factor, but as Catherine Osborne says, "if imitation were as baneful as it is said to be, the whole community would long ago have lapsed into hopeless stammering."

Co-operation of head teachers.

Where home circumstances are difficult, head teachers have been arranging for the children to do their relaxation practice in their own rooms at the schools. Another interesting feature is that some of the children of highly strung parents have been able to inculcate the principles of relaxation sufficiently for their parents to benefit considerably.

Some of the candidates for Council scholarships, who were unable to attend the day centres, were advised to attend the evening institutes and were medically inspected periodically at the County Hall. One scholar wrote, "I could not continue to attend at Page's Walk institute, because I had to attend book-keeping classes, but I have been carrying out the instructress' directions and advice and I am confident that I shall soon be completely cured. Let me say how thankful I am to you for telling me about Page's Walk and for your interest in me."

There has been a large number of applications by students to avail themselves of the opportunities offered by the Council for experience in the treatment of stammerers. It has therefore become necessary to regulate their attendances and to charge a small fee for the privilege of attending.

Rheumatism scheme.

Statistics.

The following statistics show the operation of the rheumatism scheme during 1933; corresponding figures for two previous years are also shown:—

	1931.	*1932.*	*1933.*
Number of nominations	943	1,234	1,845
,, ,, children admitted to special hospitals	655	953	1,447
Cases seen by medical referee in voluntary hospitals	181	257	244
,, ,, ,, ,, in their homes	391	501	720
,, ,, ,, ,, at supervisory centres	140	291	394
,, ,, ,, ,, at County Hall	26	109	357
Reports made by care committees on home conditions	551	814	1,147
Cases seen at County Hall on return from hospital	222	597	817
Re-examinations by school doctors	645	1,188	1,481
Number of rheumatism supervisory centres	15	16	16
Number of children attending supervisory centres for first time	1,792	2,001	1,973
Total number of attendances at supervisory centres	9,767	12,883	14,880
Number of cases reported to medical officers of health *re* dampness, etc., or to housing manager for better accommodation	115	152	230

Dr. Banks Raffle reports that at the end of 1933 the rheumatism section had records of 3,810 children who had been treated in hospital under the rheumatism scheme, and of 1,857 children who had been treated either by the guardians, or in the Council's general hospitals, transferred to the special hospitals, and passed to the section for supervision on discharge. Of these 5,667 children, 1,258 were followed up in the schools during the year, whilst 1,060 were still in attendance at the rheumatism supervisory centres. In appreciating the amount of hospital provision for the 3,810 children treated under the scheme, it should be noted that 400 of them returned for further treatment on one or more occasions.

The number of nominations for residential treatment under the scheme during 1933 again showed a great advance on that of the previous year. In 1932, 1,234 children were recommended to the scheme for treatment, compared with 1,845 in 1933. The monthly number of nominations showed very little variation from that of previous years. The hot, dry summer brought little relief to the rheumatic child, 210 nominations being received during the month of July, which was a higher figure than for any month in the year except March, while the number of recommendations received in the months of May, June and July, respectively, was higher than that for December.

Of the 1,745 children referred, 453 were reported after examination to be unsuitable for treatment at Queen Mary's hospital, Carshalton, or High Wood hospital, Brentwood. These children were either suffering from advanced heart disease, or rheumatism in the convalescent stage; 329 of them were admitted to Downs hospital, Sutton, for supervised convalescence.

During this year 1,447 children were admitted to the undermentioned hospitals under the scheme :—

	Boys.	*Girls.*	*Total.*
Queen Mary's hospital, Carshalton	401	480	881
High Wood hospital	52	155	207
Downs hospital	152	195	347
Holy Cross convent, Ramsgate ...	3	—	3
Holy Cross convent, Broadstairs...	—	9	9
Total	608	839	1,447

As in former years the cases admitted to Queen Mary's hospital, Carshalton and High Wood hospital, Brentwood, are analysed separately from those who received convalescent treatment at the Downs hospital, Sutton.

The 1,088 children (boys 453, girls 635) admitted to Queen Mary's hospital and High Wood hospital were diagnosed :—

	Boys.	*Girls.*	*Total.*
Articular rheumatism	321	405	726
Chorea	106	214	320
Articular rheumatism and chorea	26	16	42
Total ...	453	635	1,088

The heart was found to be affected in 315 children (boys 148, girls 167) at the time of their examination for admission.

The 347 children (boys 152, girls 195) admitted to the Downs hospital were classified : cardiac disease, 75 (boys 41, girls 34); and convalescent rheumatism or chorea 272 (boys 111, girls 161).

During the year 1,000 cases (boys 407, girls 593) were discharged from Queen Mary's hospital, Carshalton, and High Wood hospital, Brentwood. Of these, 585 (boys 242, girls 343) were held to be fit for the ordinary curriculum of an elementary school; 132 (boys 68, girls 64) were recommended for restrictions concerning games and drill; 175 (boys 62, girls 113) were certified for schools for physically defective children; 24 (boys 10, girls 14) were certified to be temporarily unfit for attendance at any school; 75 (boys 21, girls 54) were over school age at the time of their discharge from hospital; while the parents of 9 children (boys 4, girls 5) had moved out of the Council's area during the time their children were in hospital.

The discharges from the Downs hospital, Sutton, were : fit for elementary school, 199 (boys 80, girls 119); fit for elementary school with restrictions, 51 (boys 21, girls 30); certified for schools for physically defective children, 54 (boys 23, girls 31); temporarily unfit for any school, 3 (boys); over school age, 15 (boys 5, girls 10); parents now resident outside the Council's area, 2 (boys 1, girls 1).

Rheumatism supervisory centres.

The work of the rheumatism supervisory centres continues to grow, the figure for the total attendances during 1933 (14,880) being more than twice that of 1930 (6,670). The number of children attending the centres for the first time during 1933 was slightly below that for 1932, but twelve of the sixteen centres experienced a rise in the average number of children attending at each session. Two centres, Queen's hospital and King's College hospital, found it impossible to provide adequate supervision for the children at a weekly session. From the beginning of

July, 1933, the Queen's hospital centre held two sessions each week, and the centre at King's College hospital is to have an additional weekly session during 1934.

Name of rheumatism supervisory centre.	Number of children attending during 1933.	Number of new cases.	Attendances of old cases.	Total attendances.	Average number per session.	Number of children from the centre who received hospital treatment or convalescence under the rheumatism scheme.
Downham... ...	343	118	485	603	13·7	25
"Elizabeth Bullock"	281	103	472	575	13·1	25
Eltham	195	94	379	473	11·5	12
Hammersmith ...	354	153	626	779	16·6	5
Hospital for Sick Children (Great Ormond Street)	399	148	1,890	2,038	6·8	16
King's College hospital ...	355	125	965	1,090	24·8	19
Lewisham ...	355	140	521	661	13·5	28
Princess Elizabeth of York hospital (Shadwell) ...	426	127	671	798	18·6	35
Putney	157	63	248	311	14·1	13
Queen's hospital ...	506	169	1,473	1,642	26·5	50
Royal Free hospital	317	150	1,360	1,510	35·1	34
Royal Waterloo hospital ...	684	237	2,342	2,579	30·3	19
St. George's hospital	223	92	337	429	9·8	2
St. Marylebone dispensary ...	109	47	420	467	10·9	1
Stoke Newington...	169	109	466	575	13·1	5
Woolwich	220	98	252	350	8·0	8
Total ...	5,093	1,973	12,907	14,880	14·9	297

Personal hygiene scheme.

For the purpose of assisting at medical inspections, each school nurse is allocated to a group of schools. Each school in the group is also visited by the school nurse on a rota, in order that she can carry out the inspection of the personal hygiene of the children. At each rota visit all the children in the school are so inspected; each school is visited at least once a term, the schools where conditions are below normal receiving two or more such rota visits each term. Thus every child is seen at least three times a year.

In 1933, 1,803,547 examinations of children were made at these rota visits. In 163,173 cases the child was noted as verminous, *i.e.*, in 9·0 per cent. of the examinations, compared with a percentage of 9·8 on the similar figures for 1932.

From the records made on this basis a consistent improvement has been shown in the condition of the children's personal hygiene year by year; but, in accordance with the desire of the Board of Education, arrangements were made, by means of a small index card, to determine the number of *individual* children found unclean during the year, thus eliminating the possibility of counting separately the second or third record of uncleanliness in respect of any one child. The number of individual children so recorded was 91,629 (about 15 per cent. of the children on the school rolls), a figure which represents all those children who were noted infested with live vermin or their ova. About 54 per cent. of the cases in which verminous conditions were recorded at the rota visits are stated to be infested with nits only.

The bases of the Council's cleansing scheme are emphasis upon the parents' primary responsibility, followed by compulsion, where necessary, as provided by section 87 of the Education Act, 1921. In the earlier stages of the procedure parents are advised of the trouble, and invited to avail themselves of the facilities

provided by the Council. It is only after a child has been seen by at least two different nurses that a statutory notice is issued to the parents. These notices are served through the attendance branch of the education officer's department, and are either handed to the parents in person or forwarded by means of a registered letter.

A small amendment to the scheme was approved in the early part of the year which provided that, save in exceptional cases, parents who had availed themselves of the Council's facilities for voluntary cleansing on the service of the advice cards should not have the opportunity of again using the bathing centres voluntarily if the child speedily relapsed.

There are now 10 Council centres, 20 borough council centres, and 9 centres organised by voluntary committees; but, as the last named are limited to head cleansings, these are not equipped with sterilisers or baths. One of the centres, organised by a voluntary committee at Plumstead was closed at the end of 1933.

The following particulars for 1933 are in respect of the cleansing scheme operated from the Council's and borough councils' centres (as distinct from the "head" cleansing centres):—

Number of advice cards issued to parents	85,808
Number of children attending voluntarily at bathing centres after advice cards	42,833
Number of statutory notices served in accordance with section 87 of the Education Act, 1921	23,954
Number attending bathing centres after statutory notices—	
(*a*) voluntarily	4,970
(*b*) compulsorily	15,916
Number of cases in which police court proceedings were taken	304

At the head cleansing centres 25,051 cases attended during the year.

The figures in the above tabular statement are obtained from records kept on a terminal basis at each of the centres, and, as is the case with the rota inspection figures, a child may be recorded more than once in the same year. The *individual* record cards at the centres show that in 1933 a total of 73,418 children attended the bathing and head cleansing centres. Not all these children were, however, referred under various stages of cleansing schemes, but a certain number attended voluntarily before their departure for the residential schools, country holidays, etc., or at the request of parents, teachers and others.

Children taken for compulsory cleansing are either accompanied to the centre by the school nurse or, in the case of outlying schools, are taken by ambulances. In 1933, 11,586 children were conveyed in the ambulances.

Children suffering from scabies and impetigo are treated at the bathing centres. The total of such cases was 5,311 for the year, a slight increase on the number for the previous year (5,125).

Co-operation with the medical officers of the City of London and the metropolitan boroughs in remedying verminous conditions in the homes of children has been continued.

The number of children attending for warm baths during school hours was 32,610 compared with 30,405 in 1932.

Use of borough councils' washing baths.

Preventive and curative treatment for children between the ages of 14 *and* 16 *years.*

The gap in the provision for medical care of the population during the two years between the school leaving age and the age at which the operation of national insurance begins was considered by the Council during the past year.

Evidence from the managers of boys' and girls' clubs and other sources shows that there is great need for care during these important years.

A suggestion was made that as an experiment children should be written to a few months after leaving school and invited to come for inspection by the school medical officer during the evenings. There is however no power to expend money out of the education rate for this purpose.

Young persons above the age of 14 attending secondary and trade schools (provided and aided) in London have the benefit of the Council's school medical

service. There are however eleven voluntary day continuation schools maintained by the Council to which during the session 1932–33, 4,119 students under the age of 16 were admitted. At these no medical supervision exists, but the leaving examination in the elementary schools is held to serve as the entrance examination. There are also some 30,000 young persons between the ages of 14 and 16 attending the Council's evening institutes for whom no medical service is provided.

The principals of the day continuation schools and of certain evening institutes were met in conference and complete unanimity was found to exist in welcoming proposals for the medical oversight of the students.

It has been decided by the Council as an experiment, with the approval of the Board of Education, that arrangements shall be made during the coming year for the medical inspection and treatment of students attending the day continuation schools and of those attending three junior evening institutes, provided that the students shall not be more than 16 years of age at the time of inspection and shall not be obliged to undergo such inspection and treatment. Two of the three evening institutes at which it is proposed to carry out the experiment are attended by boys and one by girls.

Chronic invalidity.

The school attendance department reports each month the names of children who have been absent from school for three months or more on account of illness. Each year the cases on the list for the month of November are analysed, and the result gives the only index available of the causes of chronic invalidity in childhood.

The subjoined table shows the number of children reported to have been out of school for more than three months in November, 1933, and comparative figures for the four preceding years.

The number of children absent on account of rheumatism, chorea and heart disease still forms a very high proportion of the total and proves how largely this group of diseases is responsible for ill-health in childhood, especially among girls, who account for nearly twice as many cases as boys. Some of the children in the " out-of-school " list on account of rheumatism and tuberculosis have been provided for at the Council's special hospitals. Nervous disorders (including 35 cases ofepilepsy and 12 of encephalitis lethargica) accounted for 95 children. Ringworm, formerly a chief cause of prolonged absence from school, accounts for only 4 cases, compared with 129 in 1919. Since the introduction of X-ray treatment for ringworm, the average length of absence has steadily declined and consequent upon the shorter period of infectivity the danger of the spread of the disease has likewise diminished.

Among other ailments, respiratory diseases, other than tuberculosis, accounted for 129 cases, and ear disease for 56.

On account of the greater incidence of the rheumatic diseases upon girls (386 as against 222 in boys), the total invalidity amongst girls is greater than that amongst boys (1,007 to 813). There were 70 boy cripples and 59 girl cripples.

CENSUS OF CHRONIC INVALIDS, NOVEMBER, 1933, AND THE FOUR PRECEDING YEARS.

	Cases.					Percentage of total.				
	1929.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932	1933.
Rheumatism, heart disease and chorea ...	680	678	546	550	608	30·77	32·82	33·67	31·87	33·40
Nervous disorders ...	148	99	93	65	95	6·70	4·80	5·74	3·76	5·20
Tuberculosis (all forms)	264	295	212	219	209	11·95	14·28	13·07	12·68	11·50
Anæmia and debility ...	105	129	52	77	75	4·75	6·24	3·21	4·46	4·10
Ringworm	22	22	9	5	4	0·99	1·06	0·55	0·29	0·22
Skin complaints (excluding ringworm) ...	58	49	38	45	51	2·62	2·37	2·34	2·61	2·80
Eye disease	84	72	70	63	76	3·80	3·49	4·31	3·65	4·10
Infectious diseases ...	85	73	34	90	70	3·85	3·53	2·10	5·22	3·80
Other defects	764	649	568	612	632	34·57	31·41	35·01	35·46	34·88
Total	2,210	2,066	1,622	1,726	1,820	100	100	100	100	100

Infectious diseases in schools.

The numbers of cases of infectious illness reported by head teachers as occurring among school children during 1933, compared with similar figures reported during the preceding five years, are shown below :—

Year.	Diphtheria.	Scarlet fever.	Measles and German measles.	Whooping cough.	Chicken pox.	Mumps.	Scabies.	Ophthalmia.
1928	5,178	7,505	41,891	8,592	13,657	5,744	901	408
1929	5,081	7,462	19,313	12,076	12,346	14,010	932	644
1930	5,297	7,558	34,251	3,239	13,573	9,439	930	506
1931	3,202	5,626	3,811	9,019	13,598	5,685	1,068	889
1932	3,338	6,832	34,922	7,624	11,440	8,016	1,160	649
1933	4,446	11,357	14,130	8,373	10,863	9,591	1,091	427

The number of cases of smallpox notified (and confirmed) among school children during the year was 170, compared with 419 in 1932. A special reference to the cases of ringworm found in the schools appears later in this section of the report.

Apart from the exclusion of home contacts, the control of infectious diseases in the Council's schools is based on a system of surveillance which is exercised by the teaching staffs and the medical and nursing staffs of the school medical service, the object being to exclude children showing any signs of the onset of illness, and, as far as possible, to ensure that sources of infection are eliminated from the school population.

As stated in previous annual reports and in the special report on the last measles epidemic, the closure of school departments or the exclusion of " unprotected " children as preventives against the spread of measles were tried in London many years ago ; but, as these measures had no effect on the incidence of the disease, they were abandoned. In the same way, the closure of schools would serve no useful purpose in the control of infectious diseases, such as scarlet fever, diphtheria, chickenpox, whooping-cough and mumps, which occur commonly amongst the child population of London. In fact, if schools were closed on account of the occurrence of infectious diseases, the children would lose the benefit of the supervision which is exercised during the time the schools are open.

The following table gives information regarding the schools specially visited by the school medical staff during the year :—

Division.	Diphtheria.			Scarlet fever.			Smallpox.	
	Number of visits.	Number of depts. visited.	Number of children examined.	Number of visits.	Number of depts. visited.	Number of children examined.	Number of visits.	Number of children examined.
N.E.	38	27	4,361	67	58	9,670	27	6,959
N.	26	23	2,495	58	46	6,537	2	672
N.W.	26	21	2,299	36	31	4,137	—	—
S.W.	26	23	3,082	100	78	13,424	9	2,863
S.E.	37	33	3,203	96	71	11,898	—	—
Total	153	127	15,440	357	284	45,666	38	10,494

The children in five schools were also specially examined from time to time on account of outbreaks of ophthalmia (3 schools), and trachoma (2 schools).

In addition to investigations by medical officers, valuable work was done by the school nursing staff in following up the medical officers' visits in connection with the occurrence of scarlet fever, diphtheria, smallpox, ophthalmia and trachoma, as well as in the special visitation of the schools where there were outbreaks of whooping-cough and chickenpox, mumps, measles, German measles and influenza.

Diphtheria.

The school medical staff conducted 153 investigations into the occurrence of diphtheria in 127 school departments, and, of the 4,722 children examined by throat and/or nose culture, 268 yielded bacilli (K.L.B.) morphologically resembling

diphtheria. Animal inoculation showed 245 to be virulent. Ear cultures from 9 cases of otorrhœa yielded two with K.L.B., one proving virulent and the other avirulent. In a total of 49 teachers and other adults examined bacteriologically none yielded K.L.B.

The children in 64 schools were kept under special supervision for various periods by the school nurses in connection with the occurrence of cases of diphtheria.

Diphtheria "carrier" clinics.

The arrangements made with three voluntary hospitals, viz., London, St. Mary's and Guy's, for the treatment of diphtheria carriers at special out-patient clinics, were continued during 1933.

Reports have been furnished by the medical officers in charge of these clinics. In this connection it may be noted that the cases referred to the clinics through the school medical service are those in which virulence has been established as a result of animal inoculation.

The clinic at the London hospital is under the care of Mr. Francis Muecke, who has reported as follows :—

On arrival 46 cases were found to be positive and 37 negative. The following is an analysis of these cases :—

Result.	Positive on arrival. (26 operations.)	Negative on arrival. (9 operations.)	Total.
Discharged cured ...	41	37	78
Ceased to attend ...	2	—	2
Current cases	3	—	3
Total ...	46	37	83

Since my last report, the clinic has been carried on at the London hospital with increasing attendances. The treatment carried out has been as heretofore, enucleation of tonsils and saline nasal douches. The tonsil affected is seldom the enlarged angry-looking kind, but rather the small buried type ; this fact is again seen in those cases who had become negative on arrival—only in nine cases was operation considered advisable on general appearances. The results are again astonishingly good.

Professor John Eyre has furnished the following statement regarding the work carried out at the special clinic at Guy's hospital :—

The officers in charge are Dr. L. W. Cann, bacteriological department, and Mr. R. J. Cann, throat department.

There has been no alteration in the personnel of this carrier clinic since its inception in 1926. The year 1933 has been marked by a considerable rise in the number of new cases as compared with previous years, a total of 129 presenting themselves during the twelve months. It may be of interest at this stage to tabulate the statistics obtained during the period since the clinic was opened :—

Year.	Total new cases.	Virulent K.L.B.	Avirulent K.L.B.	Virulence tests.	Not tested.	Total.	B.Hoffmanni and other diphtheroids.	Virulence tests.	Diphtheroids absent.	Total.	Total new cases.
1926 (6 mths)	41	17	9	26	1	27	12	—	2	14	41
1927	80	27	7	34	3	37	30	9	13	43	80
1928	49	16	8	24	1	25	18	—	6	24	49
1929	90	26	11	37	5	42	35	—	13	48	90
1930	79	21	5	26	4	30	28	—	21	49	79
1931	70	17	8	25	2	27	34	—	9	43	70
1932	61	21	13	34	4	38	13	—	10	23	61
1933	129	20	17	65*	11	48	38	15	43	81	129

* Including "repeat" tests.

To deal with 1933 in more detail, the investigation of the 129 new cases led to their separation into four groups instead of the three previously set out in these reports :—Group 1, comprising those from whom morphologically typical K.L.B. were isolated ; Group 2, diphtheroids of doubtful morphology ; Group 3, Hoffmann's bacilli ; and Group 4, those in whom no diphtheroids could be detected ; as follows :—

Group 1—K.L.B. present. Virulent—throat 8, throat and nose 2, nose 10, total 20 (including 4 cases diagnosed as nasal diphtheria).

Non-virulent—throat 5, throat and nose 3, nose 9, total 17.

Not tested—throat 2, throat and nose 1, nose 8, total 11 (including 3 definite and 3 probable cases of nasal diphtheria).

Group 2—Diptheroids of doubtful morphology 11. Virulence test on 8 strains—all negative.

Group 3—B. Hoffmanni. No K.L.B. throat 1, throat and nose 3, nose 23, total 27. Virulence test on 7 strains—all negative.

Group 4—No K.L.B. or other diphtheroids detected 43.

It will be noted that in connection with 11 of the strains of K.L.B., virulence tests were omitted. This was due to : (1) the assumption of virulence in seven cases of nasal diphtheria diagnosed on clinical grounds, and confirmed by the isolation of K.L.B. strains of typical morphology, (2) a break in routine owing to absence through illness of the bacteriologist.

The methods of treatment set out in previous reports have now become routine measures. Four tonsillar cases that failed to clear had tonsillectomies performed, with successful results. Seven cases of frank nasal diphtheria and three " probable " cases were either sent to a fever hospital or advised as to home isolation. The remainder have been treated by local application, etc., depending upon the lesions present, and, with the one exception referred to below, ceased to " carry " virulent K.L.B. within two months of the first attendance. Those cases with definite local lesions but not harbouring K.L.B. were advised and directed as to further action, but were discharged from this clinic as fit for school.

As usual, there have been a number of cases of atrophic rhinitis. When possible these have been given intensive local treatment whilst attending this clinic, and upon discharge advised to attend at some other suitable clinic.

The only case (referred to above) which has continued to carry virulent K.L.B. after attendance and treatment for two months was also a patient with atrophic rhinitis. The K.L.B. which appeared in the cultures was apparently of an attenuated virulence as three different cultures tested by subcutaneous inoculation killed the experimental animal in five, eight and fourteen days, respectively. When the last of these animals died it was thought unlikely that death was due to a K.L.B. infection, but at the post-mortem examination a local indurated lesion was still present, and from it K.L.B. was recovered in pure culture. No macroscopical hæmorrhages could be found in the suprarenals. A second animal inoculated subcutaneously with this " passage " culture died within forty-eight hours with extensive local oedema and all the typical appearances of K.L.B. infection.

Dr. A. B. Porteous, who is in charge of the clinic at St. Mary's hospital, has submitted the following report :—

During the year 1933, 22 cases were referred to the diphtheria carrier clinic of St. Mary's hospital.

With the exception of two adults aged 40 and 20 years respectively, who were referred here direct by St. Mary's hospital, their ages ranged from 4 to 13 years—17 being sent through the Council, and three from various medical officers of health.

Of these 22 cases, 9 proved to be consistently negative from their first visit.

6 had organisms suspicious of K.L.B. in nose only.
3 ,, ,, ,, ,, ,, in throat only.
4 ,, ,, ,, ,, ,, in both nose and throat.

Virulence tests were carried out in nine cases—four being positive. One case had to be sent to a fever hospital. Two cases would not clear until their tonsils were removed.

Autogenous vaccines were made in four cases—and these all cleared up with doses ranging from 5 to 20 millions, the treatment lasting from 7 to 12 weeks. In four other cases stock vaccines were used.

Four of these patients had had diphtheria previously, but in only one of these was the more recently isolated organism found to be virulent.

Active immunisation against diphtheria.

Clinics for Schick-testing and active immunisation against diphtheria have been established by some of the metropolitan borough councils, and are at present open in 14 boroughs. In order that every encouragement should be given to parents to take their children to these clinics, it was decided, after consultation with the Board of Education and the Metropolitan Society of Medical Officers of Health, that attendances at the centres for this purpose should be recognised as equivalent to school attendance under similar conditions to those applicable to attendance at school treatment and bathing centres.

Scarlet fever.

Scarlet fever was epidemic in London during the latter half of 1933, and this is reflected in the number of cases (11,357) reported from the schools during the year. This is the highest number of cases of the disease reported from the schools since 1921, when 17,030 cases were reported. As a result of special examinations in school by the Council's medical staff, a few cases of very mild type were discovered and notified, and a number of children excluded from school on account of such findings as sore throat. In 176 schools the children were kept under observation by the nursing staff for various periods.

Scarlet fever. Cyril Henry treatment centre.

A number of cases of scarlet fever occurred during the year amongst children who were operated upon at the Cyril Henry treatment centre for the removal of tonsils and adenoids. Nineteen cases were reported, the last case being removed to hospital on 25th October, and in most instances the disease developed shortly after the operation. Every care was exercised at the centre, and swabs were taken from the sister in charge together with the rest of the staff. In no case, however, was any organism revealed suggestive of scarlatinal streptococci.

After careful consideration, it was decided that, subject to the previous consent of the parent or guardian being obtained, each child should be passively immunised against scarlet fever before the operation on the throat was performed. It was later considered advisable that each child should also be protected in the same way against diphtheria attack, although no cases of that disease had been reported amongst the children.

A combined antitoxin consisting of streptococcus and diphtheria antitoxins was prepared at the Council's Belmont laboratories and issued to the centre in ampoules of 5 c.c.

The work of immunising the children against scarlet fever commenced on 20th November, and against scarlet fever and diphtheria on 5th December, 1933. Since that time and up to 14th February, 1934, injections have been given to 226 children. The parents of 7 children refused consent, and 19 children were not injected because there was a history of a recent attack of scarlet fever or diphtheria. In no case was any complaint made to the surgeons subsequently that the child was ill in any way.

No cases of scarlet fever or diphtheria have been reported amongst the children since the procedure was inaugurated.

Smallpox among school children.

During the year, 531 cases of smallpox were notified in London, and of these 170 were among school children. The following statement shows the number of cases occurring among these during the year, grouped in school terms, for each division :—

Division.	Spring term.	Summer term.	Autumn and winter term.	Total.
N.E.	45	12	1	58
N.	2	7	—	9
N.W.	—	—	—	—
S.W.	26	36	5	67
S.E.	1	6	29	36
Total	74	61	35	170

The cases were all of the prevalent mild type and all the cases occurred amongst unvaccinated children.

Facilities for vaccination on the school premises by public vaccinators were granted whenever applications for vaccination were received from the parents, and, at the written request of the parents, about 400 children in 4 schools were vaccinated.

The special arrangement whereby home contacts of smallpox are allowed to attend school if in a healthy condition, which has now been in force for some years, has been continued. These contacts are kept under daily supervision by the school nurses, whose services have again been extensively used in connection with the daily surveillance of schools attended by children notified as cases of smallpox.

The following table summarises the reports submitted by the school nurses in connection with this work :—

Division.	No. of visits to schools. (No. of schools concerned in brackets.)	No. of cases of smallpox found as a result of examination by school nurse.	No. of children excluded by school nurse with suspicious symptoms.	No. of home contacts supervised in school.	No. of absentees (home contacts) reported to borough medical officer of health.	No. of hours devoted to work.
N.E.	933 (43)	2	11	155	52	504
N.	366 (32)	—	—	66	11	166
N.W.	9 (1)	—	—	1	—	3
S.W.	1,097 (57)	13	22	127	55	540
S.E.	373 (31)	1	6	39	58	144
Total	2,778 (164)	16	39	388	176	1,357

Experience of the prevailing type of mild smallpox has again shown the difficulties arising from the numbers of missed cases, and efforts have been directed, especially in areas where the disease persists, to ascertaining the reasons for absence from school at the earliest possible moment. As a result of intensive investigation and close co-ordination between the officers of the school medical and nursing service, the school attendance staff and the borough health services, several previously undetected cases have been brought to light.

Measles.

A report dealing with various aspects of the measles epidemic of 1931–32 such as incidence, mortality, hospital treatment, home nursing, administrative measures (including the scheme of control in the schools), use of serum in prevention and treatment, was published in July, 1933.*

Preparations were begun in May, 1933, for dealing with the epidemic expected to commence at the end of the year. A " scheme of control " involving co-operation between the health visitors of the metropolitan borough councils, the school nurses and the school nursing staff, has been put into force during epidemics of measles for some time past. The scheme provides, *inter alia*, for the daily supervision by the school nursing staff of the children in selected schools. These arrangements have worked well and bearing in mind the satisfactory results obtained in connection with the surveillance in school by the nursing staff of home contacts of cases of smallpox, it was decided, after consultation with the borough medical officers of health, to extend the scope of the scheme during the epidemic of 1933–4, so that in schools at which the scheme was in operation, home contacts of cases of measles who would normally be excluded from school, should be permitted to remain in attendance provided they were inspected daily by the school nurse and passed as fit.

The biennial epidemic of measles in London began in the autumn. An increase in the number of cases of measles reported from the schools became evident towards the end of October although the development in the schools was slow as compared with some epidemics. It was not considered necessary to apply the " scheme of control " to any of the schools until after the Christmas holidays.

The children in 82 schools were kept under special observation by the school nurse during the year.

A report on the epidemic of 1933–34 will be published in due course.

German measles.

German measles appeared in epidemic form in certain parts of London in February ; and, from the reports received from the schools, a peak was reached at the beginning of April, when some 400 to 500 cases were reported weekly from the schools. The epidemic subsided slowly in July. The children in the infants' departments of 58 schools were kept under special observation for varying periods by the school nursing staff.

Whooping-cough, chickenpox, mumps, influenza.

The following are the numbers of schools kept under daily supervision for varying periods by the school nursing staff on account of the diseases mentioned :

* *Report of the Medical Officer of Health and School Medical Officer on the Measles Epidemic*, 1931–32. No. 2996. *Price* 2*s*. 6*d*.

Whooping-cough, 86; chickenpox, 135; mumps, 161; influenza (January to March), 84.

In the course of their visitation of these schools, the school nurses inspected the children and advised the head teachers as to exclusion or re-admission to school.

Scabies. A reference to the action taken in connection with the ascertainment and treatment of cases of scabies appears elsewhere in this report. The children at one school were kept under special observation for a time by the school nurse on account of the occurrence of several cases of the disease amongst the children.

Ophthalmia. Outbreaks of ophthalmia occurred during the year at three schools and two cases of trachoma were reported. The children in the affected schools were kept under supervision by the school medical and school nursing staffs, working in close co-operation with the borough health services. Special measures were taken to obviate the spread of infection through the use of school towels.

Ringworm. The following table shows the number of cases of ringworm of the scalp among the children in the Council's schools dealt with during 1933 compared with the figures for preceding years :—

Year.	New cases.	Cured cases.	Cases outstanding at the end of the year.	Percentage of cures effected by X-ray treatment.
1925	1,518	1,611	373	71
1926	1,029	1,141	228	76
1927	896	868	249	76
1928	684	745	170	76
1929	590	603	146	76
1930	513	536	110	75
1931	419	420	107	62
1932	358	370	89	75
1933	336	334	86	68

As has been stated in previous annual reports, the prevalence of scalp ringworm amongst children of school age in London some years ago presented serious and difficult problems. Infection was spread rapidly and the cure by means of ointment, lotions, etc., was a lengthy process. The excellent work of the school nurses in detecting the disease in the earliest stages and "following-up" with a view to securing proper treatment and the employment of X-rays have been responsible for the very great reduction in the number of cases.

During the year, 655 specimens of hair stumps, sent by the school nurses, were examined for ringworm at the laboratory at the County Hall. Ringworm fungus was found in 212 of these (153 small spore and 59 large spore).

Favus. One case of favus was discovered after microscopical examination. The child received treatment in hospital.

Post-encephalitis lethargica. During the year 19 children (12 male and 7 female) were admitted to the Council's post-encephalitis lethargica unit at the Northern hospital, and 15 (10 male and 5 female) were discharged. One child (a male) died at the unit after an attack of acute influenzal bronchitis.

Play centres. Close co-operation has been maintained with the Play Centres Committee, who were notified with regard to all schools where infectious illness was prevalent. The Committee are continuing the scheme for the distribution of notices warning parents against sending children to the centres if they are unwell or are home contacts of infectious illness, as outlined in the annual report for last year.

School journeys. The special arrangements were continued for the medical examination of children before departure for school journeys. Particulars of the general arrangements made for school journeys during 1933 are set out on page 61.

Approved schools and remand home. In consequence of the occurrence of twelve cases of scarlet fever amongst the boys at Mayford school during the period December, 1932, to April, 1933, the Education Committee on 17th May, 1933, agreed that, subject to the consent of the parents or guardians, the boys should be tested to ascertain which were immune to scarlet fever and which were susceptible, and that the latter should be actively immunised against the disease. The work was carried out with satisfactory results.

The results of the preliminary tests were as follows :—

Number tested for susceptibility to scarlet fever	155
Number found to be naturally immune to scarlet fever attack	132
Number found to be susceptible to scarlet fever attack ...	23

Of the 23 children, 21 were actively immunised, and in the remaining two cases the process was not completed owing to special idiosyncrasies of the subjects. Two further cases of scarlet fever occurred during the year at the school, one of whom was a new entrant for whom consent to immunisation had not been obtained, and the other was a boy whose parents had refused consent to immunisation.

The general arrangements were similar to those in operation in the residential schools and children's homes in connection with the active immunisation of the children against diphtheria which were described in the Annual Report for 1931.

Eight cases of scarlet fever also occurred at Mile Oak school, and two at Ponton-road remand home. Four cases of chickenpox and one of scabies were reported amongst the children at Ponton-road remand home. The necessary action was taken to prevent the spread of infection and the affected children were removed to hospital. A number of cases of influenza were reported in January amongst the boys and staff at Mile Oak school.

Residential special schools.

The work that had been proceeding at the residential special schools in connection with the active immunisation of the children against diphtheria, to which reference was made in the Annual Report last year, was reviewed by the Education Committee on 19th July, 1933, and its continuance was authorised.

During the year 98 children, for the most part new entrants, were tested for their susceptibility to diphtheria, the necessary parental consents having been first obtained. The test showed 20 to be susceptible and 78 to be not susceptible. Thirty children were immunised, including those in whose cases the immunisation process had not been completed on 31st December, 1932.

One case of diphtheria occurred at Linden Lodge (blind) school during the year, in the person of a boy who had not been tested for susceptibility to diphtheria. A few sporadic cases of other infectious illnesses occurred amongst the children at these schools during the year. A number of cases of influenza were reported from some of the schools in the early months of the year.

Residential schools, children's homes and children's receiving homes.

The scheme adopted for the prevention of the spread of infectious diseases in the residential schools, children's homes and children's receiving homes transferred from the various authorities to the control of the Council on 1st April, 1930, was described in the Annual Report for 1931, and was put into operation in July of that year. As stated in the report, " the quarantine of schools and homes on the occurrence of infectious disease, *i.e.*, the cessation of discharges and admissions and the general segregation of all contacts, has been abandoned in favour of a scheme of special supervision by means of which children are segregated as soon as the onset of illness appears, pending examination by the medical officer."

To meet certain criticisms as to the efficacy of the arrangements in preventing the introduction of infection into the schools and the consequent spread of infectious illness amongst the children, it was decided, after consultation with the education officer and chief officer of public assistance, that children to be admitted to a children's receiving home who were known to have been in contact with infectious illness should be sent, in the first instance, to one of the receiving homes (Earlsfield House) where they would be kept in isolation for appropriate periods. At the same time arrangements were made for as full details as possible to be obtained as regards those children said to be " contacts." It was also arranged that, in the event of a case of infectious illness occurring amongst the children in the three receiving homes, "contacts " should be sent to the isolation block at Earlsfield House, if accommodation permitted.

The revised scheme was put into operation on 1st January, 1934, and the arrangements are to be reviewed at a later date in the light of the experience gained.

A system of special supervision is the central feature of the procedure in operation in the schools and homes, and, as it was felt to be of great importance that some of the nursing staff at each of the schools and homes should be able to recognize

cases of infectious illness in their earliest stages, arrangements have been made for the interchange of a certain number of nurses between the fever hospitals and the schools and homes. This scheme came into effect on 1st February, 1934.

A brief review of the incidence of infectious illnesses in the residential schools, children's homes and children's receiving homes during 1933 is set out below. All the cases of infectious illness (except scabies and impetigo) were removed to a Council's hospital. All practicable steps were taken in close co-operation with the officers of the schools and homes with a view to preventing the spread of infection.

Diphtheria.—Cases of diphtheria were reported during the year from some of the residential schools and homes as well as a few cases from the children's receiving homes. Arrangements were made for the swabbing of contacts where considered necessary, and the facilities afforded by the Council's laboratory at the County Hall were placed at the disposal of the medical officers of the schools and homes. Diphtheria investigations were undertaken in 15 schools and homes during the year, and 791 children were bacteriologically examined by throat and nose culture. Of these, 56 showed evidence of K.L.B. (53 virulent) and 735 proved to be negative. Four primary positives still showed evidence of K.L.B. in subsequent cultures. Ear cultures from three children with otorrhœa yielded avirulent K.L.B. in one instance.

In addition 38 adults (members of the staff) were bacteriologically examined by throat and nose culture. Of these three showed evidence of K.L.B. (2 virulent).

Scarlet fever.—Owing to the occurrence of 33 cases of scarlet fever amongst the children at the Shirley residential school, the Education Committee on 8th November, 1933, decided that, subject to the consent of the parents or guardians, the children should be tested to ascertain which were immune to scarlet fever and which were susceptible, and that the latter should be actively immunised against the disease. The general arrangements were similar to those in operation in the residential schools and children's homes in connection with the active immunisation of the children against diphtheria which were described in the Annual Report for 1931. The work commenced at the school on 1st February, 1934. The cases of scarlet fever that occurred at the other residential schools, homes and receiving homes do not call for special comment.

Measles.—A number of cases of measles occurred at four schools and homes, including two receiving homes.

German measles.—Outbreaks of German measles occurred at ten schools and homes, including one receiving home.

Whooping-cough.—Cases of whooping-cough occurred amongst the children at three schools and homes, including one receiving home.

Chickenpox.—Cases of chickenpox were reported at twelve schools and homes, including three receiving homes.

Mumps.—Cases of mumps were reported at five schools and homes, including one receiving home

Ringworm.—A few cases of scalp ringworm were reported from three schools and one receiving home.

A number of cases of ringworm also occurred during September amongst the junior girls at another residential school. An assistant superintendent of school nurses visited the school and gave advice with regard to the use of combs, etc. The infected children were sent to the Council's Goldie Leigh hospital for treatment. Arrangements were made at each of the four schools for the examination of children under a Wood's glass analytical lamp and this was found to be of great assistance in the detection of cases.

As it was considered desirable that children entering residential institutions should be examined under the lamp on admission to the school or home, apart from any examination of suspects that might be necessary, authority was given in October, 1933, for lamps to be provided at those schools and homes where electric current was

available and where lamps had not so far been supplied. Four more lamps were accordingly supplied for use at the residential schools and children's homes and three for use at the children's receiving homes.

Specimens of hair stumps taken from doubtful cases have been microscopically examined from time to time in the laboratory at the County Hall. Out of 89 specimens examined, ringworm fungus was found to be present in 19 (18 small spore and 1 large spore).

A serious outbreak of cases of body ringworm occurred amongst the boys on the T.S. "Exmouth" during the winter months of 1933–1934, necessitating the evacuation of the ship and the transfer of the boys in January, 1934, to Hanwell residential school which was then empty. As action in this matter is still proceeding a review of the outbreak will be included in the Annual Report for 1934.

Active immunisation against diphtheria in the residential schools and children's homes.

The arrangements described in the Annual Reports for 1931 and 1932 in connection with the active immunisation of the children against diphtheria were reviewed in March, 1933, and the Education Committee decided that they should be continued. During the year 2,115 children were tested for their susceptibility to diphtheria after the consent of the parent or guardian had been obtained. The test showed 741 to be susceptible. These, together with 185 cases where immunisation was still in progress on 31st December, 1932, were brought under the immunisation scheme and by the end of 1933, 847 had received a complete course of inoculations. Of this number, 833 gave a negative reaction when re-tested, and may now, for all practical purposes, be regarded as immune.

During the year the managing committees of those schools and homes (Anerley, Erskine Lodge, Romilly Lodge and Stepney) which had not hitherto been in favour of the immunisation of the children gave the matter further consideration in the light of the results obtained at the other schools and homes where the process had been in operation. As each of these managing committees expressed agreement with the scheme, the Education Committee on 25th October, 1933, authorised the introduction of the measure at Anerley and Stepney, and on 8th November, 1933, at Erskine Lodge and Romilly Lodge.

Open-air education.

Provision.

Provision for education in the open air includes nine day open-air schools (non-tuberculosis) with accommodation for 1,627 children, and six day open-air schools (tuberculosis) accommodating 568 children. There are also seven country and seaside convalescent camp schools, accommodating 518 children for periods varying from one to three months, through which 4,512 children pass annually; and 209 open-air classes in playgrounds and parks providing for upwards of 6,000 children.

An interesting and successful addition to the open-air facilities in London was afforded by the experimental residential convalescent camp school, for children normally attending day schools for the mentally defective, first organised in the summer of 1931 in consequence of an offer from the Shaftesbury Society of their school at Loughton (Epping Forest) to be used as an open-air school for ailing mentally defective children.

In a report upon the boys' class, numbering 25 individuals, which was held during the period 26th May to 23rd June, it was stated that there was an average increase in weight of approximately 1 lb. 10 ozs. All the boys looked healthier, happier and more alert on their departure—a very noticeable contrast to their appearance on arrival. It was of interest to compare the increases of weight, which varied from 4 lbs. to 4 ozs., with the recorded characters of the boys. There was found to be a definite relationship. The "good" appeared to flourish like the green bay tree, while the reward of the "wicked" was dismal, as shown by these examples :—"Clean and tidy," increase 4 lbs.; "good, cheerful and willing," increase 3 lbs. 8 ozs.; "restless and mischievous," increase 4 ozs.; "fretful and quarrelsome," increase 5 ozs.; "disobedient," increase 5 ozs.

Open-air schools for non-tuberculous children.

The nine day open-air schools for non-tuberculous children maintained by the Council have continued their excellent work.

The following table gives the roll of the day open-air schools on 21st December, 1933 :—

	Boys.	*Girls.*	*Total.*
Aspen House	84	64	148
Bow Road	115	81	196
Brent Knoll	102	45	147
Charlton Park ...	81	62	143
Downham	85	59	144
Holly Court	148	118	266
Stowey House ...	158	119	277
Upton House	84	54	138
Wood Lane	84	62	146
Total ...	941	664	1,605

Holly Court open-air school.

The following report has been submitted by Dr. C. N. Atlee on Holly Court open-air school :—

During the year 124 children were admitted to this school, and 133 were discharged as absolutely fit, the number on the roll being 266.

The average gain in weight per head showed an increase on last year, being 4 kgms. in the case of the boys, and 4·3 in the case of the girls ; two exceptional cases were noted, one boy actually gaining 10 kgms., and one girl 12 kgms. during one year.

Holly Court is favoured with a particularly efficient cooking staff, and special attention has been paid to the question of diet for the children. It has been found possible to vary and improve the meals, particular stress being laid on the regular inclusion in the diet of such articles as lettuce, watercress, milk, butter, fruit, eggs and good meat. In addition, the liquor from boiled vegetables, carrots and greens, is regularly incorporated in other dishes (this being an important food factor which is usually deficient in most children's diet).

Thirty children are now regularly practising lung expanding exercises with the Woulff's bottle, which pleases them and has undoubtedly proved beneficial in asthmatic and bronchial cases, as well as in children with poorly expanded chests. Bronchiectatic cases are, in addition, rested in an inclined posture, to facilitate lung drainage.

The new Board of Education régime of physical training has been put into use, and out of door occupational therapy is regularly carried out, in the shape of such forms of work as gardening, path laying in concrete, crazy paving, etc.

Sunlight treatment is also done, but our experience is that the children derive most benefit from the fresh air, irrespective of any sunshine.

Seven cases of minor notifiable disease have occurred during the year.

Upton House open-air school.

Of Upton House open-air school, Dr. Legge has reported :—

Healthy bronzing of the skin and a generally increased air of alertness were very noticeable in the great majority of the children.

Few children like to go back to ordinary school, but an endeavour is made to return them to the elementary school in about 12 to 18 months, in order to give as many children as possible that need it a chance of a stay at the open-air school.

Organised games are particularly well provided for at Hackney Downs and Millfields.

The boot club, run by the care committee, is very helpful to the more needy children in the matter of providing adequate footwear.

The meals—breakfast, mid-day dinner and tea—are well balanced, sufficient in quantity and tastefully prepared. Special attention is also paid to extra nourishment for those children who are considered to need it. The average number on cod-liver oil is 33, on Parrish's food 18, and on extra milk 14. In my opinion the most important single physical factor for good in these open-air schools, is the adequate feeding the youngsters get, aided—*immensely* aided—by the increased metabolism induced by the out-door life.

Downham open-air school.

Dr. Kathleen Butterfield has reported as follows on the Downham open-air school :—

The number of children in attendance during the year was 141, their ages varying from 8 to 14 years. Of these, 110 have been in attendance throughout the year. During this period 30 children were admitted to the school, 5 were discharged as fit for an elementary school, 4 left the district, and 8 left school on reaching the age of 14 years. Of the last, all were in good condition when they left.

Sun-bathing in specially designed costumes was possible on many occasions during the summer, and many children became well tanned. No child evidenced any ill-effect. Spray baths, which were optional, were freely used during the summer months.

The garden and grassland attached to the school are now well drained, so that the children have more room for exercise than was possible at first.

Statistics concerning the children who have been in attendance throughout the year are as follows :—

	Boys.	*Girls.*
Number who showed an increase in height ...	70	40
Average increase in height	4 cms.	4·4 cms.
Number who showed no increase in height ...	—	—
Number who showed increase in weight	70	40
Average increase in weight	3·1 kgs.	2·7 kgs.
Number who showed no increase in weight ...	—	—

It is interesting to note that 19 boys and 12 girls showed a temporary loss of weight during the summer vacation.

	Boys.	*Girls.*
Number who showed improved nutrition	39	18
,, ,, ,, ,, colour	20	26
Number who have had extra milk in school ...	25	12
Number who have had cod-liver oil and malt in school	13	5
Number who had extra milk and cod-liver oil and malt in school	2	4
Average daily attendance	89 per cent.	

The physical defects evidenced by the children are as follows :—

Malnutrition.—59 children showed some evidence of this and 39 have improved.

Poor physique.—Of 24 of these children, 14 show improvement.

Debility.—12 of 22 debilitated children improved. Four of these children who suffer from spinal curvature due to bad posture have been having courses of remedial exercises under hospital supervision. Two others have during the year developed rheumatism. One has been at Carshalton for three months. The other has been recently discharged from hospital, and, though now showing no active sign of rheumatism or of heart affection, is very anæmic and debilitated, and so has been excluded from school and sent to the rheumatism supervisory clinic for advice.

Anæmia.—12 of 16 anæmic children have improved.

Fibrosis of lungs.—10 out of 11 of these children showed some improvement of their general condition. The other child is now away for convalescence.

Rickets.—8 children showed some evidence of former rickets.

Chronic otorrhoea.—9 children were affected. One child has had an operation for mastoid infection and is now free from otorrhoea. Three have been cured by ionisation treatment at the special ear clinic, and four are now under treatment there. In one child the trouble cleared up temporarily but has recently recurred.

Cervical adenitis.—6 children were affected. Three have scars of former operative treatment, their condition now being satisfactory. One child had a course of "light treatment" recently, followed by excision of the glands, and is now doing well. One child with an enlarged submaxillary gland is under hospital treatment, and the gland is a little smaller. Two other children need dental treatment.

Unhealthy tonsils.—Of 6 children affected, two have had operative treatment, and the others show some improvement of the local condition.

Chronic nasal catarrh.—Of 6 children, four are well now, and the others have improved.

Chronic blepharitis.—Of 5 children, 4 are clear and one improved.

Old abdominal tuberculosis.—2 children are keeping well. One had a relapse last summer and is now invalided from school. He has recently been to Brentwood.

Enlarged bronchial glands.—There are two children, of whom one is doing well, the other not too well.

Old Chorea.—2 children who have had this complaint are keeping well.

Heart disease.—2 children with mitral disease are doing well. Their general condition has improved.

Stowey House open-air school.

At Stowey House, Dr. Slowan in his annual report remarks upon the difficulty experienced of late in keeping this large school up to its accommodation numbers. This he ascribes to the improvement in general health of the children in the contributory elementary schools. The following is an extract from his report :—

One cannot help coming to the conclusion that, as ought to be expected, there is a general rise in the health standard of the school child, and that there is a considerable diminution in the number of children suffering from anæmia, malnutrition or enlarged glands, *i.e.*, children requiring open-air school treatment.

This view is to a certain extent confirmed by the increasing difficulty which is clearly shown in finding children suitable for open-air schools, and in the insufficiency of the reasons for recommendations given on the nomination forms such as "would probably benefit by open-air school treatment," "requires more fresh air," or at the most that very useful term which can be used to cover every uncertain diagnosis "debility."

Open-air schools for tuberculous children.

In addition to the provision of treatment for tuberculous children in residential institutions, the Council continued the use of the open-air schools (type T) specifically for tuberculous children and extended their use as set out below to include non-notified cases and contacts.

The six schools—Elizabethan (Fulham), Geere House (Stepney), Kensal House (Paddington), Springwell House (Battersea), Stormont House (Hackney), and Nightingale House (Bermondsey) have, together, accommodation for 568 children. The number on the roll on 31st December, 1933, was 590, and the average attendance for the year was 475.

Admission to these schools is granted on a certificate of the medical officer of the Council, and children returning home after a period of residential treatment in sanatoria are given preference. During the year 1933, 221 children were admitted and 228 discharged. Of the latter, 49 were transferred as fit to attend elementary schools, 85 were fit for work, 46 were transferred to residential institutions for residential treatment for tuberculosis or admitted to hospitals for various reasons, 36 moved away, 10 were transferred to special schools, and 2 were discharged for other reasons.

As the reduction in the number of definitely tuberculous children eligible for these schools resulted in a considerable number of vacancies, it was decided to extend their scope of usefulness by admitting children suspected to be suffering from tuberculosis or children living in conditions rendering them particularly liable to the disease, who would thus secure the benefit of the constant supervision of the tuberculosis officers serving as medical officers of the schools.

In connection with this widening of the scope of eligibility for admission the medical officers of the schools report as follows :—

I am of opinion that this is a public health preventative measure which is likely to prove of value. (Springwell House).

In my opinion, the scope of the school will be much widened by the admission of contacts who will then be certainly more under the eye of the tuberculosis officer than is possible otherwise, and the régime of rest and work under open-air conditions will obviously be very beneficial.—(The Elizabethan).

In the course of dispensary work, the tuberculosis officer sees many children of poor physique, who are living in contact with cases of tuberculosis in bad home conditions. A period at an open air school, under close medical supervision, cannot fail to be of benefit to these children, not only in building up their physique, but also in helping to raise their resistance to infection. The majority of the recently admitted non-tuberculous children were definitely of a poorer physical standard than the majority of the previously admitted tuberculous children. Almost all of the latter group entered the school on return home from a period of sanatorium treatment at the end of which their physique had been properly built up, and the function of the school was to maintain a standard which had already been reached prior to admission.—(Nightingale House).

Efforts were made to secure that, during 1933, every child in attendance at these schools should have a holiday out of London either by means of private arrangements or through the education school journey organisation.

The following school journeys were made during the year 1933, through the ordinary organisation :—

School.	Period.		Place visited.	No. of children.
	From	To		
Elizabethan open-air school	9th May	23rd May	Whitstable	21
,, ,, ,,	26th ,,	9th June	,,	23
Geere House	14th June	28th ,,	Chelmsford	24
Kensal House	9th ,,	23rd ,,	Whitstable	22
Nightingale House (Boys)	27th ,,	11th July	,,	20
,, ,, (Girls)	11th ,,	25th ,,	,,	25
Stormont House	23rd May	6th June	Broadstairs	57
Springwell House	13th Sept.	27th Sept.	,,	70

In addition, provision was made for a further 91 children in accommodation specially set aside for the purpose at Princess Mary's hospital for children, Cliftonville, Margate. They went in two parties for a fortnight each, from 30th August to 27th September. The accommodation thus utilised was designated for the period, "The Holiday School."

Only a very small residue of children failed to receive a holiday for various reasons, such as removal from district, private arrangements for holiday failed to materialise, etc.

In this connection the medical officers of the schools report as follows :—

During 1933 two school journey parties (to Whitstable) were organised by the head mistress, and both were of considerable value to the health of the children concerned. The county medical officer sent a party of children to Princess Mary's hospital, Margate, a venture which, in my opinion, thoroughly justified the precedent.—(Nightingale House).

The school journey in the summer was again a complete success. While one cannot expect any very tangible evidence of benefit, such as increase in weight or marked improvement in the physical signs of disease, I am satisfied that the school journeys have a very beneficial effect on the general health of the children.—(Stormont House).

It was curious to note that in the majority of cases the weight of the children after the school journey had dropped (possibly due to the excessively hot weather during the summer) but their weights were regained very rapidly after a few weeks and their general health and resistance appeared to be much improved by the holidays. (Elizabethan).

Convalescent camp schools.

The numbers of children passing through the residential convalescent camp schools during 1933 were : boys, 2,890 ; girls, 1,622 ; total, 4,512.

The experimental camp school for mentally defective children at Loughton has already been described.

In detail the numbers were :—

	Boys.	*Girls.*
Provided schools :—		
King's Canadian school, Bushy Park ...	2,865	—
George Rainey, St. Leonards	—	592
Wanstead House, Margate	—	536
Total	2,865	1,128
Non-Provided schools :—		
Fairfield House, Broadstairs	—	201
Russell Cotes school, Bournemouth ...	—	206
St. Mary's, Dover	—	37
Loughton	25	50
Total	25	494

The actual number of children away at these schools *at one time* in November, 1933, was Bushy Park, 257 ; Margate, 64 ; St. Leonard's, 58 ; Bournemouth, 30 ; Broadstairs, 45 ; Dover, 2. Total, 456 children, of whom 199 were girls and 257 boys.

The head master of the King's Canadian residential open-air school has submitted the following account of the physical activities :—

During the year 2,865 boys were admitted to the school, of whom 1,032 (36 per cent.) were selected by the school doctor for special courses of remedial exercises. The cases treated were of two types : (i) those having a tendency towards kyphosis, lordosis, scoliosis and flat feet (these were dealt with in suitable sections) ; and (ii) those needing strengthening exercises who were given a progressive course of physical training.

In all a reasonable standard of improvement was noted, and many parents expressed satisfaction at the result achieved. Illustrations depicting bad posture have been prepared by one of the instructors for display in the "remedial room." During the year 52 more severe cases of flat feet have been followed up by the completion of the re-inspection card.

The general improvement in physique of all the boys who have been in residence here is evidenced by an average increase in weight among them of 3·2 lbs. coupled with an invariable increase in height.

Dental treatment and the care of minor ailments have continued on the same scale as in previous years.

The following is a summary of the cases treated by remedial exercises :—

Group I	Flat feet severe	52	
	„ „ less severe	408	
			460
	Defective breathing		27
	Scoliosis (postural)		30
	Kyphosis and round shoulders		97
Group II	General strengthening exercises		418
	Total ...		1,032

Minor ailments were dealt with as follows :—

Infectious illness (to hospital)	3
Other cases to hospital	6
Admitted to sick ward and nursed there	21
Stammerers whose treatment was continued	28

Dental treatment was provided for 1,105 boys, consisting of :—

Extractions	801
Fillings	996
Gum treatment	188
Scalings	299

Open-air classes in parks and playgrounds.

The number of open-air classes held in connection with the elementary schools in 1933 was 209. Of these 11 were of type A (children selected on medical grounds from a group of schools); 75 were of type B (children selected on medical grounds from the various classes of a single school); 35 were of type C (consisting of a single class from one school, educated continuously at one open-air station); and 80 of type D (consisting in a rotation of classes from one school occupying one open-air station).

Eight classes are permanent, that is to say they are outside the yearly programme and do not need re-authorisation each year. In addition, 58 classes were continued throughout the winter, where the suitability of the sites had been approved by the school medical officer. About one-third of the classes were held in parks, gardens, playing-fields and other open sites, while the others were held in school playgrounds.

Children in classes of the types A and B are kept under special observation by the school doctors. Long experience has shown that in London there are two types of children who are weakly and anæmic, and require special care. They may be termed for shortness the bronchitic type and the rheumatic type. The former thrive only on open-air treatment of the sanatorium type, and for these the more exposure they get the better they are, provided that the additional nourishment required is available, and that they are adequately clothed and shod, while the latter cannot stand such treatment and require warmth and coddling.

The medical reports again illustrate these results. Thirty-five detailed reports were received from the school doctors on the open-air classes.

While the great majority of the classes are highly successful and exercise a powerful effect upon the health of the children, a few do not give such satisfactory results.

As an example of a satisfactory class, Dr. C. N. Atlee reports of the King-square open-air class :—

> This class consists of 29 girls drawn from Bath-street Central-street and Compton-street schools, and works under a shelter at King-square. It is open during the winter as well as the summer. The children are drawn largely from overcrowded homes in a slum locality, and are discharged and replaced by others as found necessary. Attendance was actually better during the winter months than during the summer.
>
> Four of the children in attendance now are on free dinners and two on free milk. Many of the remainder are supplied with milk, and next term it is expected that the whole class will have a milk meal, with the exception of those who do not like it, of whom, there is quite a considerable proportion. Without exception, all the children have definitely improved in health as a result of the open-air. The figures for height and weight show great variability, some cases exhibiting a definite loss in weight, probably due to physiological and natural reasons, and I do not attach much importance to these figures personally. Of greater importance is the fact that the teacher in charge observes that there is, in all cases, a definite improvement in the general brightness and demeanour.

Fat and weight apart, there is a general improvement in nutrition in every case: six nervous children have definitely improved in steadiness: and three chest cases have become stronger. I am of opinion that the class is of very great use in this locality and that it is certainly desirable to keep it going in both winter and summer.

Once again it must be emphasised that those responsible for placing the children in classes in the open-air must see that adequate additional nutriment is forthcoming to satisfy the increased appetite and the quicker metabolic changes which it is the function of the open air régime to produce, and upon which success and improvement depend.

For instance Dr. Edith Robinson reports as follows on one open-air class :—

On examination I find the general condition of the children in the open-air class disappointing. On the whole their nutrition is not good, and their colour poor. The older girls (*i.e.*, from 12 to 14 years) show most improvement. This would be expected, as the older girls have been in the class for two or three years. On enquiry, one finds that the majority of the parents are out of work, hence the poor nutrition. It is very advisable that these children should have milk meals.

The condition of the children does not compare favourably with that of the children in the Poole's Park open-air class, which only remains out-of-doors from Easter to October.

In contrast Dr. Denton reports of a class in a school where care committee activity reaches a very high level :—

I should like to tell you how successful the open-air class at the Stoke Newington High-street school has been. I think all the children have benefited, and some of them are remarkably improved. It has been worth while.

I stated last year that open-air classes to be successful must be run "magnificently." It will not do at all to choose a handful of weakly children, place them out of doors in a secluded corner of the playground and forget all about them. The nutrition of each child must be carefully studied—all the children without exception should be given nourishment during the morning and a rest period in the afternoon.

Two contrasted classes in the same neighbourhood showed such different results in 1932 that I set out the particulars in my last report. On these two classes Dr. C. S. Eyre reports again this year showing that a little more attention has produced better results in the class which so poorly responded last year. Her report is as follows :—

The situation of the two classes is probably responsible for the difference in the two lots of children, the children from school "A" being much quieter. Also it is only latterly that the children from school "B" have been able to rest after the mid-day meal, and this has given rise to a very marked general improvement. Last year the children from school "B" showed little improvement at the end of the summer, and I pointed out to the head teacher that the mid-day rest had been found extremely beneficial at school "A" and suggested that she should get some day beds which she did. The improvement in the children is this year very noticeable.

The school "A" class has always shown a more decided improvement all round, although the children are selected from the same class of house, etc. The teacher tells me that she is a great believer in the mid-day rest, and very little games, but certain physical exercises every day. (I noticed that the carriage of these children was quite remarkably good). She also supervises the mid-day meal and deprecates a lot of pastry or unsuitable food. She is extremely careful and good in this work.

All the children had improved in height and weight and in facial colour and appearance. The children from school "B" had mostly improved, but there have been changes in the staffing, and the position of the class is undesirable. Some better position should be found if possible.

School journeys.

During the year 1933, 358 school journeys were made (compared with 332 in 1932), and the children taking part were medically examined in all cases before departure. In all 12,185 children were examined (the corresponding figure for 1932 being 10,753); and of these 65 were excluded as unfit to take part in the journeys on various grounds, including the following (the figures in parenthesis refer to the year 1932) :—otorrhœa, 10 (4); infectious disease or contacts, 2 (2); tonsillitis and kindred ailments, 9 (11); temperature, 11 (3); personal hygiene, 0 (3); skin diseases, 14 (9). Several children were provisionally rejected on grounds connected with personal hygiene but were subsequently passed after visiting a bathing centre.

Separate figures are given on p. 58 respecting the school journeys from open-air schools for tuberculous children.

A " super " school journey was that which took place at Easter, in the shape of an exchange between Belgian and English children. On the English side there were taking part 802 children and older pupils from colleges, preparatory, private, grammar and central elementary schools. The arrangements on the English side were carried out by the chairman of the School Journey Association. An appeal to the Council's medical staff by the Association resulted in Dr. E. J. Boome volunteering to accompany the expedition as honorary medical officer, and Misses I. J. Archibald and M. B. Simmonds, of the Council's school nursing service, as honorary nurses. The itinerary comprised Ostend, Bruges and Ypres. It is believed that this is the largest party of the kind which has proceeded abroad.

Physical education.

" Another thing in which we are going to see big changes is in physical education. I hope to see, in the next 10 or 20 years, in every school, a school doctor co-operating from the outset with the director of physical training, and placing boys through a progressive course in which physical faults and underdevelopment will be discovered and remedied."—(Dr. Norwood, Headmaster of Harrow, 15th December, 1933).

The organisers of physical education (Mr. A. H. A. Gem and Miss Grant S. Clark) have presented a report to the Education Committee for the two years ended September, 1933. The following are extracts taken from the section of that report dealing with elementary schools.

This report covers the period September, 1931, to September, 1933. These two years have been difficult ones for education and in physical training progress has been retarded. Many schemes which were nearing completion have had to be suspended and further developments postponed. Nevertheless, progress can be recorded and much has been accomplished to consolidate the advances already made. This has only proved possible because of the loyal co-operation of the teachers who have worked hard to give the children the physical education which is their due.

Infants' schools.

In the younger classes the chief points aimed at in a physical training lesson are to give healthy, joyous activity and to teach the children to play together in safety. When the teacher enters into the spirit of the lesson, a happy period of play with a little useful training underlying it is the result. Later on, in the simple informal exercises used, the children learn to pay a certain amount of attention to detail, and gain in control and balance and general poise. It is very rare to find a school where the majority of the staff does not now give a vigorous lesson and believe in the value of these periods of exercise. To those not versed in the life of an infant school it is sometimes quite a revelation to see the way in which a well handled class can manage itself in free play with simple apparatus such as balls and ropes.

Junior schools.

Generally speaking, by the time the children are eleven years of age, they should have gained an interest in various types of physical activity and a considerable knowledge of the exercises appropriate to their age, that is to say, they should have acquired the habit of really purposeful work.

They may be reasonably expected to have become fairly skilful in the performance of all the exercises and activities contained in the appropriate portion of the syllabus of the Board of Education and to have mastered the correct method of handling the jumping ropes, as well as the more elementary jumps. They should also have learned to play chasing games, simple ball handling games and practices and the more vigorous relay-racing games quietly and unselfishly, observing the rules in a sporting spirit. In the final year in the junior school, the children should be able to carry out with real understanding " group activities " under leaders, and by this period they should have acquired definite skill in handling a ball, particularly in the simpler types of free team game, and a mastery of the elementary points in attack and defence.

It might reasonably be said that such a range of material is considerably in advance of the requirements of the 1919 syllabus of physical training, which is the text-book on which the schools work. For several years past, however, the teachers' classes which have been held have dealt with this more ambitious material and the schools are thus well aware that work in advance of the 1919 syllabus is expected nowadays. The Board of Education, appreciating the position which has thus arisen throughout the country, are shortly to produce a revised edition of the syllabus, and it is confidently expected that the new edition will embrace many of the features which have for some time past formed part of the training scheme in the teachers' classes.*

Although the ground has to some extent been prepared beforehand, and although the work of the better teachers will most probably be found to be quite up to the standard of the revised syllabus, nevertheless the task which lies before the organising staff of introducing the newer syllabus to the schools in general is a formidable one, and is likely to absorb much of their time in the near future.

* Since the above was written the Board's syllabus for 1933 has been issued.

The last two years have shown a very definite advance in the quality of the work in junior schools. Elementary rhythmical exercises are more frequently employed than was formerly the case, with the result that greater range of movement is obtained and the various exercises have thus become more beneficial. Group work is often seen in the top classes and a determined and most successful effort has been made to show that the ten-year old child is quite capable of playing effectively the more simple of the free team games.

Three main factors have contributed to this advance: (1) A growing volume of knowledge on the part of the teachers of the essentials underlying a good physical training lesson. (2) A feeling that the child of about 10 years of age is now in the top form of the school, and top forms are expected to produce a high standard. (3) The praiseworthy desire to ensure that the product leaving the junior school and passing on shall be a credit to the school. This feature is far more marked than was the case when the children were merely promoted to a new class in the same school.

Whilst many schools now give the equivalent of a daily lesson, others still lag behind in this respect. In such cases it is, as a rule, the lower classes in the school which suffer most. The top class usually receives three syllabus lessons, a games lesson and a swimming lesson weekly, but in the lower classes it is sometimes found that nothing is given to offset the games and swimming of the older children. Definite progress can, however, be recorded and it is confidently anticipated that, as time goes on, a daily lesson for all juniors will be the accepted rule.

Senior schools.

The conditions of a senior school are specially favourable to a broad and generous physical education, since the school is free from the pressure too often exerted on the curriculum and time-table of central and secondary schools by the requirements of external examinations and, undisturbed by such influences, the senior school can adapt its course to the needs of children between the ages of 11 and 14 years.

A daily lesson should thus be the aim of every senior school and when the great issues at stake are more fully realised, and when the value of exercise as an outlet for the emotions (particularly at this period of a child's life) is considered, the desirability of this provision will be evident. The programme in the summer might embrace three syllabus lessons, one games lesson and a visit to the swimming baths each week; whilst in the winter four syllabus (or three syllabus and one dancing) and one games lesson might be substituted.

At present the times devoted to this branch of education vary very considerably. Whilst some schools approximate very closely to the daily lesson, others fall far short. As with the juniors, it is common to find the top classes receiving three syllabus, a swimming and a games lesson weekly, whilst with the lower classes, for whom accommodation may not be available for organised games and swimming, the average provision lies between three and four lessons weekly. Furthermore when, as is the case with many schools, swimming is discontinued at the end of the summer season, arrangements are not always made to replace it for the winter months with a period devoted to some other branch of physical education.

The Board of Education has so far been able to do little to clarify the position with regard to the nature of work expected in senior schools and the onus has been thrown on the local education authority. In the case of the boys, the Board has indicated that suitable material may be found in the Reference Book of Gymnastic Training for Boys. As it was unreasonable to expect the teacher of general subjects to select suitable material from such a comprehensive text-book primarily designed for the specialist teacher who has a fully equipped gymnasium at his disposal, a pamphlet, dealing only with the appropriate material, has been drawn up which has been issued to all teachers who have attended the special senior school classes.

The case of the girls' schools is even more difficult, as no official indication whatsoever of the scope of work required has been given by the Board. Doubtless in due course an official syllabus, applicable to the country at large, will be issued and it is hoped that this will not be long delayed.

The past two years have witnessed a steady advance in the quality of the work in the boys' schools. The teachers in the senior schools have joined the special evening classes which have been organised in large numbers, and have to the best of their ability carried back into the schools the more advanced work acquired. Some measure of rhythmic work is now employed and greater freedom and range of movement are thus being achieved. The general activity work shows considerable improvement, particularly in respect of the jumping activities and team games of the free type.

The work for senior girls has hitherto been based on the 1919 syllabus, supplemented by material given at teachers' classes. This is not satisfactory, as only those attending the classes have, or generally even know of the existence of, the newer type of work. As a revised syllabus by the Board of Education has been expected for some time now, it was not considered advisable to provide the senior schools with "The Supplement for Older Girls" which has been issued to the central schools, as the tables there include the use of apparatus.

In these circumstances it is natural that there should be gaps in the work, and there is no chance of these being filled until a new syllabus is provided. In some instances the newer type of work is well understood and a high standard of performance is reached. In other cases, however, while the girls are given much more active lessons than formerly, a very limited range of material has been covered. The playground games lesson figures on the programme much more frequently now, and this side of the work is distinctly improved. The lessons are better planned and coached and more worth-while games are played.

Unreoganised schools.

Owing to limitations of space, it is impossible to deal at great length with the work in the schools which have not yet been reorganised. During a period which to many must have been unsettling, these not yet reorganised schools have progressed steadily and achieved valuable work. At times such as these there must inevitably be the feeling that it is of little use developing the work when at any moment the school may be broken up. It can confidently be stated that so far as the physical training is concerned, no such tendency has been in evidence and the schools have gone on striving to strengthen the quality of their work and letting the future take care of itself. This fact is demonstrated by the large number of teachers who have attended the various teachers' classes and by the nature of the work which has been seen when visiting the schools.

Perhaps a special word of commendation is due to some of the non-provided schools who do effective work often under exceedingly bad conditions.

Central schools.

The classes held for central school teachers are the only ones dealing with the use of gymnastic apparatus so far organised for teachers from the elementary service. The replacement of teachers qualified for work in the upper classes of central schools therefore often presents difficulties. The bulk of the work, however, is undertaken by teachers who have attended one or more special courses at the L.C.C. College of Physical Education, and specialisation, particularly in the upper classes, is now fairly common.

In order that the head teachers might see modern physical training lessons, including the use of such apparatus as has been supplied to their schools, a demonstration was arranged at the college, when a class of girls and one of boys were taken.

It was intended to increase the supply of apparatus in the schools in the autumn of 1931. This had been budgeted for and it is a matter of great regret that it had to be cut out of the programme.

As a keener interest is taken in the work, so the additional value of exercise done in suitable clothing is being more fully realised.

More schools are now going out for organised games and several departments have a games afternoon. Swimming is almost general and in some schools everyone who is physically fit goes to the baths. In one or two schools English folk dancing is enthusiastically taken up.

There is still, however, room for improvement in the time devoted to physical training, especially in respect of the younger classes, many of which only receive the minimum time.

Boys—Some progress has been made in the boys' schools and with a few exceptions all are now attempting the more advanced range of material which was introduced a few years ago. The quality of the work varies very considerably from school to school and is largely dependent on the staff available for teaching this subject. In some cases the work is really virile and shows considerable promise, in others it can be classified as fair, whilst in yet others, the work is not of the quality which may reasonably be looked for in a central school.

It is considered that if the highest results are to be achieved, more teachers with a specialised knowledge are necessary. With the opening of Carnegie Hall of Physical Education, a unique opportunity arises to obtain men of better qualifications to work in the boys' central schools. There are many young and enthusiastic men teachers in the London service who, provided just financial arrangements could be made, would welcome the opportunity of obtaining a qualification which would enable them to specialise in physical training in the boys' central schools. It is hoped that it may be possible to send a steady supply of teachers to Carnegie Hall and thus reap the benefit of a higher quality of work. A combination of such men as can be sent to Carnegie Hall and the pick of those already teaching physical training in the boys' central schools should be sufficient to solve the problms.

Girls—In 1927 the Board of Education issued a "Supplement for Older Girls" and since then the work in the upper girls' classes has been based upon this. The document is a small one and the schools are ready for a wider range of material from which to work, as many of the exercises included are now used lower down the school.

Some of the work seen has reached a high standard, and in several instances, chiefly through specialisation, a big move forward has been made. In the main more skill has been developed in the movements, involving the use of apparatus and somewhat more ambitious work might now be embarked upon.

Organised games.

It is clear that the provision of sufficient playing fields of good quality to meet the needs of the London schools is a matter of such difficulty that the desired position is unlikely to be achieved for many years to come. Increasing attention therefore has to be paid to the playground as a place in which organised games can be played. It is not suggested that the average playground is as satisfactory as the average playing field, but it is at least better to use it than to omit games altogether.

During the past two years the development of the playground games lesson has been noticeable and it is now frequently found that such lessons are provided for those children for whom accommodation cannot be found on a neighbouring playing field or who may be too young to make the journey.

For some years past special evening courses have been held dealing with games and activities suitable for use in the playground, and these classes have been attended by a large number of teachers who have found such classes not only helpful from the point of view of the playground games lesson, but also for the general activity section of the normal physical training lesson.

The games lesson which is held on the playing field presents a somewhat different problem as, in this case, the main games are cricket, football or netball, whilst other games like stoolball, rounders and skittle-ball are also employed in some cases, although not with the frequency which they warrant. This may be accounted for by three main reasons :—

(i) The only means of strengthening the quality of the games lesson taken on the playing field is by means of the special half-time games courses which are held periodically on grounds kindly lent for the purpose. Owing to financial difficulties such courses have been considerably curtailed, and during the past two years only four such courses have been held ; two for men and two for women. The spread of the newer ideas with regard to the organisation of games is thus slow.

(ii) The provision of adequate facilities for playing subsidiary games and practices. Even in the Council's own parks the necessary markings are not always provided, whilst in the Royal parks it is somewhat rare to find adequately marked-out pitches.

(iii) In some schools a sufficient supply of apparatus presents a difficulty, whilst the carrying of apparatus to and from the playing fields is a real problem ; particularly when such apparatus embraces articles like stoolball wickets and rounders bases. When conditions permit, it is hoped that it may prove possible to arrange for the storage at each park of the more bulky items which might well form a common stock for the schools using the site.

The efficiency of the organised games lessons which have been seen has varied very considerably. Some are well carried out, the children receiving real exercise and training. Others do not justify the time devoted to them.

The commendable feature mentioned above is particularly noticeable in the classroom playing field scheme, which has made a most satisfactory start. In these cases the accommodation is good, equipment is adequate, and as a result the lessons are, generally speaking, virile and effective.

At the time of submitting the last report the Streatham Vale scheme had just commenced, and since that date work has been started on the Downham field with excellent results. An enthusiastic body of teachers has been selected and a very high standard of attendance has been maintained. Both prior to the opening of Downham and at the beginning of its second year, special classes were organised to help the teachers in the task which lay before them. The ground at Honor Oak has also been brought into use as a playing field, but this scheme awaits the erection of classrooms before it can be brought into full operation. It was a matter for regret that it proved impossible, owing to a variety of reasons, to start games at Bellingham in the summer term, 1933. The scheme is, however, now in operation and promises to be very successful.

Experience has confirmed the belief that the classroom playing field scheme is most effective and is a practicable means of giving sound health and character training to many children who might otherwise be deprived of it. It is hoped that in the near future not only will classrooms be built on the sites already purchased, but in addition a wide extension of this scheme may prove possible.

Swimming.

As reorganisation proceeded it became clear that if junior schools were not to be cut out of swimming, it was necessary to alter the rule governing the attendance of the younger children at the baths and the new rule now runs as follows :—

> "Children who are 11 years of age and over are eligible to receive instruction in swimming, and head teachers are permitted, at their discretion, to arrange for the attendance of suitable younger children for swimming instruction, provided that eligible elder children are not thereby excluded. In cases where children under 10 visit the baths for swimming instruction, the head teacher should first obtain the written consent of the parents or guardian."

The reason that the old rule was made was to ensure that the older children should have first claim on the bath accommodation, and not because it was thought unsuitable that the younger children should be taught to swim. Now that the numbers in the schools have decreased and the bath accommodation has been slightly increased, it is possible to take a larger proportion of the children to the baths. The junior schools have responded well to the opportunity afforded them, as the following figures indicate :—

Junior departments sending	1 class	...	...	361
,, ,, ,,	2 classes	...	...	108
,, ,, ,,	3 classes	...	...	20
,, ,, ,,	4 classes	...	...	7
	Total	...		496

The above figures include some junior mixed departments which send classes of both boys and girls.

Individual senior schools and schools not yet reorganised are also sending more groups, and in one or two senior departments the keenness is such that it is becoming the custom for everyone (unless medically unfit) to learn to swim. Some areas are still badly provided with swimming facilities ; either no accommodation at all being available, or what there is being poor or inconvenient for teaching purposes. Experience has shown that so far as school work is concerned, the open-air baths are not a useful proposition ; the head teachers not feeling justified in taking the responsibility of sending children under these conditions, except in the really fine weather.

Year by year the number of schools holding their own swimming galas is increasing.

Teachers' classes.

Owing to the financial restrictions in force during the past two years, the number of half-time teachers' classes has been seriously curtailed. As has already been pointed out, only one half-time games course has been held each year, and the position has been the same with regard to the half-time physical training courses. As is only to be expected, these courses have filled at once and many teachers have had to be refused admission. A comprehensive programme of evening courses has, however, been held and the many classes organised have done something to relieve the position.

It is desired to place on record keen appreciation of the manner in which the teachers generally have supported these classes. They have shown just the same willingness to give up their own time as in the past, and it is noteworthy that every class advertised has been filled and in many cases applications have had, regretfully, to be refused. This fact affords a fitting answer to those who decry the public spirit of the teaching profession.

Out of school activities.

It is a matter of regret that limitations of space render it impossible to refer in detail to the excellent work carried out in the individual schools, but it is of interest to record that as the years pass there is a growing appreciation of the fact that the essential feature of all extra-mural activities is that they should start in the school itself, and should cater for as many children as possible : the poor player as much as the skilled.

No longer is the production of a few expert children who can win a cup or shield for the school (whilst the remainder receive little training) considered the ideal. The starting place for all game-like activities must be the school, and, from the wealth of material thus trained selected representatives can pass on to the district and London events.

Subjoined is a brief review of the activities of the various " All London " associations.

London Schools Athletic Association.

The honorary secretary reports that in spite of the general depression, the activities of the London Schools' Athletic Association have been continued as usual and the number of affiliated districts, namely twenty, compares favourably with that of former years.

A very successful championship meeting was recently held at the White City, which was kindly lent for the purpose, free of charge, by the directors.

Both in the case of the boys and the girls the South London Schools' Association teams won the greatest number of points.

Whilst the subject of athletics is under consideration, it is of interest to record that the practice of holding school sports meetings is steadily increasing and during the past two seasons 945 closures have been granted for the purpose. It is confidently anticipated that in the not too distant future every school will hold such an event. Reorganisation has given rise to a new and admirable practice, namely the holding of a group sports meeting in which the senior school and its contributory junior schools join together for the event.

London Schools' Amateur Boxing Association.

The scope of the London Schools' Amateur Boxing Association is steadily increasing and there are now twenty-five affiliated districts, and in those areas in which an association has not yet been formed, individual schools are able to affiliate direct. In certain districts secondary, technical and elementary schools are all working in the closest harmony. The association is finding it necessary to give much attention to the extension of the activity among boys of 14–17 years of age.

Groups of secondary schools are affiliating for inter-team matches, and the organisation of technical and central schools is steadily proceeding. Whilst the chief object of the association is to encourage as many boys as possible to box, it has been equally successful in the more highly competitive events. The fact that 15 out of 16 weights in the Great Britain championships were won by London boys indicates the high quality of the boxing.

London Schools' Cricket Association.

The London Schools' Cricket Association has thirty-two affiliated London districts and seven extra-metropolitan areas. Not only does the association perform valuable work in fostering cricket among the boys of London in general, but they are also responsible for arranging various representative fixtures.

The London schools beat the junior Eton side this year. Eton 87, London schools 106 for 6.

Portsmouth schools and Essex schools were also beaten. Portsmouth 59, London 120 for 2. Essex 115, London 160 for 2.

The Harrow match was drawn. Harrow 131, London 121 for 5.

London Schools' Football Association.

The London Schools' Football Association has just completed its fortieth season and now has 49 district associations in affiliation and 7 central school leagues ; the number of individual schools affiliated being over 1,000. Although the reorganisation of schools has created many difficulties in certain areas, yet an increased number of boys will be catered for in the coming season.

A feature of the past year has been the excellent work done in the newly formed Junior Schools' League. The Hackney association won the junior championship and were runners-up in the senior. Fulham central won the central school championship, and Kennington-road were runners-up in the elementary schools individual championship.

London Schools' Netball Association.

In addition to the normal organisation, the London Schools' Netball Association has this year extended its activities in two main directions, (1) the formation of a junior competition to cater for junior schools, and (2) the playing of representative district matches. Thirty-nine matches were played before arriving at this year's winning districts, which were as follows :—

Senior Section winners, South London ; Runners-up, Paddington.

Intermediate Section winners, Islington ; Runners-up, Bermondsey.

Junior Section winners, Rotherhithe ; Runners-up, Battersea.

Over 300 schools are now affiliated to the 16 districts which, combined, form the association.

London Schools' Swimming Association.

The London Schools' Swimming Association which has once again performed work of the highest value, appears to thrive on difficult times, as last year shows a record number of certificates gained.

	Boys.	*Girls.*	*Total.*
First class certificates.			
Senior and unreorganised schools	7,539	7,001	14,540
Junior schools	713	1,102	1,815
Outstanding (previous year)	106	130	236
Second Class certificates.			
Senior and unreorganised schools	8,978	8,741	17,719
Junior schools	1,037	1,701	2,738
Outstanding (from previous year)	115	115	230
Total ...	18,488	18,790	37,278

It is interesting to note that, whereas the senior boys gained more certificates than the senior girls, yet the position was reversed in respect of the juniors. Hackney heads the lists for both seniors and juniors in the total number of certificates gained, but, if reckoned on the average number of certificates gained, Stoke Newington comes first, where 9 affiliated departments gained 538 certificates, giving an average of 59·8 certificates per department.

The number of Life Saving certificates issued was as follows :—

	Boys.	*Girls.*	*Total.*
Advanced	1,110	2,139	3,249
Elementary	1,499	2,686	4,185
Outstanding (from previous year) ...	88	127	215
Total ...	2,697	4,952	7,649

The following awards were granted from the Royal Life Saving Society for saving or attempting to save life from drowning : vellum certificates, 2 ; parchment certificates, 14. All these were awarded to boys.

The association has expressed its keen appreciation to the Council for its action in adjusting the rules governing the attendance of children at the baths, so as to allow junior schools to continue their activities.

Provision of Meals.

Dinners are provided for necessitous children attending school, and follow menus which have been approved by the school medical officer. Each dinner provides at least 25 grammes of protein and 750 calories of heat value.

It is the function of the school care committee to place upon the feeding list every necessitous case requiring additional nourishment in order to profit by the education provided. It is considered reprehensible to wait until ill-nourishment due to lack of food has occurred to the extent that it requires the intervention of the school doctor.

The head teacher of the school is empowered immediately to place any necessitous child provisionally upon the dinner list, without waiting either for the care committee's consideration of the case, or for the school doctor's visit.

While children are placed upon the school dinner list as soon as there is social need, and before malnutrition has had time to develop, additional nourishment in the shape of milk or cod-liver oil is given to the children who are specially in need of it, irrespective of financial or social necessity, on the advice of the school doctors.

These children are kept under continuous and careful observation and are weighed regularly by the school nurses.

Much attention is now being given to the provision of milk for children in elementary schools. The practice of giving milk under the powers of the Education (Provision of Meals) Act, 1906, to children found at medical inspection to be debilitated began in London in 1909. In the winter of 1909–10, Dr. Hawkes a part-time school doctor working in Bethnal Green called attention to the children of one school (Wolverley-street). Most of them belonged to large families dwelling in small houses, in almost chronic destitution, the mothers often being the bread-winners and the fathers out of work. At the medical inspection a list was recommended to the school care committee as suitable for extra meals of milk and cod-liver oil. Of 91 children who had been assessed as " nutrition 4," *i.e.*, definite malnutrition, who had been placed on milk, only 9 were so assessed at the end of the year.

Thus commenced a practice which proved of great importance. It rapidly spread from school to school in London and became a recognised part of the Council's measures for combating ill-nourishment in school children. Later the example of London was followed by many of the provincial authorities.

The number of official milk meals supplied in elementary schools by the Council in 1932–33 was about 4½ millions, of which nearly 2 millions were paid for out of the rates. The price charged to parents in a position to pay for the official milk meals is the average current retail price in the trade, viz., 3d. a pint throughout the year.

The numbers of children receiving each type of meal were as follows :—

Meal.	May, 1933 (23 school days).		November, 1933 (20 school days).		December, 1933 (19 school days).	
	For payment.	Free.	For payment.	Free.	For payment.	Free.
Dinners	1,206	6,712	1,341	6,968	1,284	7,190
Milk	13,057	12,023	12,363	12,503	12,641	12,775
Cod-liver oil and malt...	3,062	2,074	3,541	1,925	3,816	2,094

The monthly averages of individual children fed for the calendar year, 1933, were for payment, 16,626 ; free 19,098. The numbers of individual children fed in December, 1932, were :—

Meal.	On payment.	Free.	Liability accepted by Public Assistance Committee.
Dinners	1,096	6,311	497
Milk	13,877	10,787	—
Cod-liver oil and malt ...	3,286	1,948	—

There was thus an increase of 14·4 per cent. in children on dinners, 3·0 per cent. in those on milk and 12·9 per cent. in those on oil and malt in December, 1933, compared with the number in December, 1932.

Although the total number of children upon milk ordered by the school doctor only increased by 3·0 per cent., the number on free milk in school increased by 18·4 per cent. In other words there was a transference to the free list of a considerable number of children whose parents formerly paid.

The figures in the above tables relate only to the official feeding lists, which deal with children who are fed as the result of consideration as to social necessity or as the result of the school doctors' recommendations. They take no account of the very large number of additional children receiving milk in school as the result of the activities of voluntary milk clubs. It is believed that something like twelve million penny bottles of milk are distributed in the elementary schools through these clubs. The price charged in connection with these is the same as that charged in connection with the official scheme, viz., 3d. a pint throughout the year.

Residential schools and homes—Dietary.

Final consideration has been given to the provisional dietary which came into force in March, 1932, at the majority of the transferred schools. The superintendents and medical officers of the schools were asked by the education officer for their criticisms after an extended trial of the dietary for eighteen months.

There were practically no adverse criticisms, but complete unanimity in praise of the diet as a whole. One or two superintendents suggested slight alterations in individual items and these were considered and adopted in most instances. The medical officers all remarked upon the improved condition of the children, and the absence of skin eruptions which used to be so prevalent in poor-law homes, was especially noted. This is important as unhealthy skin conditions are associated with a diet which, though ample in bulk, is deficient in quality.

There is evidently general appreciation by the children of the dietary, the variety of food is said still to be as stimulating to their appetites as when the dietary was first introduced. There has been a great diminution in the amount of food left on the plates. Whereas formerly much food was rejected by the children at table and found its way to the pig trough, it is now stated that waste is almost reduced to the vanishing point. The substitution of an egg once a week in the summer months for hot potatoes as a breakfast extra, which was authorised when the dietary was considered in May last, has been greatly appreciated.

The milk ration, especially for the older children, has been increased. It is made clear that the milk allowance for each child up to ten years should be seven pints a week, and for those of ten and upwards four and a half pints a week. The syrup ration for breakfast (half an ounce) has been increased to three-quarters of an ounce.

There was a general desire for an alternative to " corned beef " once a week, and sausages were allowed at discretion for this purpose.

Although there was never any criticism of the dietary as a whole, there were minor criticisms in the early stages of its trial. These were all due to a confusion of the dietary itself with the suggested menus which were printed as an appendix to the dietary. These were intended merely as suggestions, and as such added greatly to the value of the booklet issued. It has been made abundantly clear that the appended menus are purely suggestions and have no binding force.

To the footnote of the scale stating that children should be fed " according to appetite " have been added the words " for which a reserve of bread and potatoes should be available."

The dietary as it stands is intended for a mixed population of boys and girls of average age of 3 to 15 years.

Adolescent boys, who are under manual training for a considerable part of their time, clearly require larger quantities of food, and it cannot be expected that they can be adequately fed on the same dietary or at the same cost as a mixed population of younger children. It was decided to increase the allowance of the staple articles of diet to the extent of 25 per cent. in those institutions consisting only of boys, where the average age is in the neighbourhood of 14 years.

With regard to the residential open-air schools where debilitated children are sent, it is necessary that certain modifications should be made if the dietary scale, which was devised for healthy normal children, is to be extended to them. These modifications have been made in the form of additional egg and milk rations at the expense of meat and rougher vegetables.

The general effect of the dietary has been considered by Mr. W. P. Sheldon, M.D., F.R.C.P., who is both an assistant medical officer in the school medical service and one of the Council's pediatric consultants. He is satisfied as to the suitability of the diet on general grounds and has prepared a series of tables of heights and weights.

As the heights and weights of the children had not been taken during the years before the new dietary was introduced, Dr. Sheldon has compared the weights and heights of children at the time the new dietary was introduced with the weights and heights of children of the same ages weighed and measured at the end of a year on the new diet. These were not comparisons of the same children, but comparisons of the condition of the children at each age group after a year on the new diet, with the condition of the children corresponding in age in the previous year who had arrived at their height and weight at that time as the result of the dietaries previously in force in the schools. Given children of equal vitality and physique over all the age groups, the result, if the new dietary were equal in value to the old, would be neither gain nor loss.

Actually in 10 out of 13 age groups the advantage lay with the new dietary in both weight and height. Thus eleven-year old children in March, 1932, had an

average weight of 66 lbs., but the succeeding age group, weighed at the age of eleven in March, 1933, after a year on the new diet, had an average weight of 68·5 lbs.

As this was repeated in over 75 per cent. of the groups, both in height and weight, the deduction is inevitable that the new standard dietary is more suitable and successful than the various dietaries in previous use.

In addition the actual average increases of the children at each age group, while on the new dietary, were computed and compared with the expected increases derived from the standard tables of heights and weights of London elementary school children. It was found that in all the age groups for which comparable standards exist, the actual gain was better than the expected gain in weight, and the gain in height was better than the expected gain in every age group save one. The increase in the actual gain of weight over that expected was very pronounced in the years of more active growth. Thus the children put on over three pounds more than the normal increase at the ages of 11 and 12 years.

Dr. Sheldon remarks on the general improvement in stature during the past year as being especially gratifying as the children as a whole appeared formerly to be especially stunted in growth compared with normal children.

Two memoranda were issued in 1932 by the Ministry of Health, comprising the report to the Minister of the Advisory Committee on Nutrition on Diets in Poor-Law Children's Homes, and the Criticism and Improvement of Diets.

Occasion was taken to examine in the light of these reports the provisional dietary for residential schools and children's homes recently adopted by the Council.

The recommendations made in the reports have generally been anticipated in the provisional dietary and it is gratifying to note that the ideas expressed in the reports are practically identical with those which were followed in forming the Council's scale.

Notes for Standard Dietary Table, See p. 71.

Additional ingredients each week per child : ¾ lb. of sugar, 1 pt. milk, 4 oz. flour, 2 oz. fat, ¼ egg, 2 oz. dates or raisins, condiments as may be necessary.

* Boiled pudding (suet, date, raisin, bread, etc.) compiled according to the formula of flour 2 oz., suet ¾ oz., fruit ¾ oz. Bread crumbs may be used in lieu of flour up to one-third of the quantity allowed.

† *Tomato cheese.*—Cheese without rind to be passed through the mincer and mixed to a paste with canned tomato pulp in proportion of 3 oz. cheese to 2 oz. tomato. This to be spread on bread and margarine.

†† Every child to have 2½ oz. of raw apple every day served at the end of the last meal, whether tea or supper.

** *Salads.*—During winter months raw salads should be provided by passing through the mincer available garden produce : cabbage, beetroot, carrots, turnips, swedes, etc., and serving raw with salad dressing. This may be given at dinner instead of cooked vegetables with cold meat ; or at breakfast or tea on days when extras are not available ; or in place of extras on other days.

*** *Butter.*—Ration must not be omitted in favour of vitaminised margarine.

Milk.—The total milk allowance per week for each child up to 10 years of age to be 7 pints, and 4½ pints for those of 10 and upwards.

Porridge may be withdrawn from the dietary during the summer months, at the discretion of the superintendent, provided that the bread ration is then increased, and that the milk ration is not reduced.

Bread is to be served at table in necessary quantities.

Potatoes.—When potatoes are poor in quality, the ration may be supplemented with rice or dried peas.

Quantities.—Unless otherwise stated, the quantities shown in the table are in an uncooked state.

Children aged 3 to 5.—Children aged three to five should have their food allowance adjusted in accordance with age, and the quantities in the table may safely be diminished. Fish at this age should be without bones ; coffee and raw salads (with the exception of lettuce leaves in season) should be omitted. The full milk and fruit allowances should, however, be strictly adhered to.

Variation of meals.—A reasonable amount of latitude should be shown in applying the dietary, so as to avoid the recurrence of a particular item on the same day of every week.

Individual children.—The medical officer of the school or home may vary the dietary for any individual child, if this is necessary on medical grounds.

For schools consisting only of boys whose average age is in the neighbourhood of 14 years, the allowances of the staple articles of diet (*i.e.*, meat, bread and milk) as shown in the above table to be increased by 25 per cent.

Residential open-air schools.—Dietary to be modified by giving additional egg and milk rations at the expense of meat and rougher vegetables.

Appetite.—Notwithstanding anything in this dietary table each child shall be fed according to appetite, for which a reserve of food shall be available.

Standard Dietary Table for Residential Homes and Schools.

Breakfast.	Amount.		Dinner.	Amount.		Tea.	Amount.		Supper.
Age	3–9 yrs. inc.	10-15yrs. inc.	Age	3–9 yrs. inc.	10-15 yrs. inc.	Age	3-9 yrs. inc.	10-15yrs. inc.	10 and over.
Porridge ... ... (Rolled oats or medium Scotch meal and milk twice a week)	¾ oz. raw ½ pt.	1½ oz. raw ½ pt.	Meat, beef, such as top side, 3 oz., or 4 oz. uncooked; leg, 3½ oz., or 5 oz. uncooked; ox cheek, aitch bone, brisket, 4 oz., or 6 oz. uncooked. Mutton, such as leg, 3 oz., or 4 oz. uncooked; breast or neck, 4oz., or 6 oz. uncooked. (Four times a week.)			Bread (white brown or currant)	5 oz.	6 oz.	Children 10 years and over who choose it to have supper consisting of a slice of bread (2 oz.) and margarine (½ oz.), 1 hour before bed-time.
Bread (white or brown) ...	3–6 oz.	4–8 oz.				Margarine or dripping (5 days a week)	½ oz.	¾ oz.	
Margarine (80 per cent. animal fat) twice a week; dripping 2 days a week	½ oz.	½ oz.	Liver, pork, bacon, rabbit.	2 oz. cooked.	3 oz. cooked.	Butter*** (twice a week)	½ oz.	½ oz.	See note ††.
Butter twice a week ***	½ oz.	½ oz.	Corned beef or sausages (once a week)	2 oz. cooked.	3 oz. cooked.				
Herring (½) or filleted haddock (2½ oz.) once a week	2½ oz.	2½ oz.	Fish (once a week)	4 oz.	6 oz.	Jam or treacle or honey (once a week)	1 oz.	1 oz.	
Fried bacon or slice of cold bacon or rissole twice a week	1½ oz.	1½ oz.	Soup (pea or lentil) or meat broth (allow 1½ oz. of meat uncooked). (Once a week.)	8 oz.	½ pt.	Tomato cheese (twice a week)†	¾ oz.	1 oz.	
			Potato	4–5 oz.	4–8 oz.				
Marmalade once a week...	½ oz.	½ oz.	Fresh vegetables in season (greens, carrots, turnips or onions) or	4 oz. 5 times a week	4 oz. at least 3 times a week.	Apple†† ...	2½ oz.	2½ oz.	Strict attention to be given to the cleansing of teeth immediately before bed-time.
Syrup once a week ...	¾ oz.	¾ oz.	Dried peas or beans	2 oz. not more than twice a week.	2½ oz. not more than 3 times a week.	Cake once a week (bread ration reduced)	3 oz.	4 oz.	
Cocoa or coffee (½ pt. milk per child 5 times a week)	½ pt.	¾ pt.	*Boiled or milk pudding 5 times a week in winter; twice a week in summer ...	4 oz.	5 oz.	Tea: ½th pt. of milk per child ...	½ pt.	¾ pt.	
Fried potatoes 2 days a week (in winter) ...	3 oz. uncooked.	4 oz. uncooked.	On other days, jam or treacle tart (hot)...	4 oz.	5 oz.				
			Or fruit pie	4 oz.	5 oz.				
			Or stewed fruit (hot or cold)	3 oz.	4 oz.	**Fresh salads to be given frequently in place of jam, tomato cheese, etc.			
			Or fruit salad of dried fruit	3 oz.	4 oz.				
One egg once a week (in summer)	—	—	With any of these, milk puddings can be served, and it must be arranged that milk puddings are given at least three times a week both winter and summer, either as the sweet course or as part of it, the choice of dish depending partly on the prevailing weather						
	3–9 years inclusive.								
11 a.m.	Milk, ½ pt.			2 oz.	3 oz.				

See page 70 for notes.

Co-operation of voluntary bodies.

Social care organisation.

The general care of the children in the London elementary schools is carried on by a social service, consisting of voluntary workers organised into school care committees, which are assisted and directed by paid organisers. This system prevents the work of medical inspection and treatment and the wider work of general physical care of the child becoming stereotyped and bureaucratised, a fault which might otherwise be difficult to avoid. Friendliness and co-operation with the parents are the key notes of this social service. The teachers whenever possible give much assistance, and in many cases it is entirely owing to their help and devotion that the care committee work in the schools is possible.

Co-operation with voluntary hospitals.

As every care committee is independent, it would be impossible to summarise the work that is done, but it is far-reaching in its scope. The care committee workers are as a rule tenacious in following-up all cases where children are ailing or neglected, and upon them is thrown the responsibility of seeing that not a child attending school suffers from lack of action—whether medical or dental attention, or feeding or clothing—which it is possible to take to ameliorate this condition.

London is abundantly rich in voluntary hospitals which provide extensive services for the poor. It has been the aim of the school medical service to work harmoniously in co-operation with these. While some of them are definitely included in the authority's scheme for medical treatment, others are only linked with the service by voluntary arrangements. At a number of hospitals a liaison officer or officers, consisting of a member or members of the Council's care committee organising staff, attends regularly and keeps the hospitals in touch with the social services of the schools.

There has been complaint in the press and on the part of social workers of the long waiting periods and inadequate arrangements for out-patients at voluntary hospitals. The hospitals have been greatly concerned about this and so have the authorities of King Edward's and other funds. Generally speaking the tendency is to improve the arrangements and things are getting better.

The arrangements made under the Council's scheme are very precise and have not been the subject of complaint. All visits by Council cases are made by appointment. The children are seen separately and promptly. There is no undue waiting. The Council's officer attends and supervises the arrangements. The medical officers are paid for their work and the attention of the hospital is called to any irregularity. The arrangements conform to what the Board of Education has defined as "a school clinic within a hospital."

If there were no arrangements made, large numbers of parents of school children would nevertheless elect to attend at voluntary hospitals and would be subject to the ordinary inconvenience of unregulated out-patient treatment.

In such cases all touch would be lost and all following-up at school and in the home by the Council's care organisation would fail to be carried out.

The presence of the organiser at the hospital ensures following-up for all the children under the scheme, and influences the proper care and following-up of children attending the hospitals not under the scheme, too, for "non-Council" ailments, as the organiser is appealed to on behalf of these also.

The association of the organisers with voluntary hospitals makes a great difference in the results of hospital treatment, and generally speaking the condition of children attending hospitals where the Council's organisers attend is satisfactory, whereas the condition of children attending hospitals outside the scheme where no organiser attends is as regards following-up quite unsatisfactory.

On the whole, the fact that the Council has arrangements with many voluntary hospitals is of very great benefit to the child population of London, and without this co-operation the work for the care of the children would definitely be less effective and in many cases the good that is now being done would be very largely lost.

The scope of the work in those hospitals in which the Council maintains an organiser or organisers is shown in the following reports dealing with two of them, viz., Guy's hospital and the Miller hospital :—

The divisional treatment organiser, has had assistants working in five departments of Guy's hospital—aural, eye, orthopaedic, skin and the diphtheria carrier clinic. The school care committees have been supplied with up-to-date reports on children attending in these departments, and information from the care committees has been passed on to the surgeon, where necessary. In addition, the almoner has very kindly obtained reports from other departments for the care committees and divisional officers and has passed through a great deal of information which the physicians wished the school authorities to have. Guy's hospital.

In the aural department 1,407 new children were seen during the year; 721 were discharged cured, 4 left London, 28 left school and 30 were reported well by the care committees. There were 97 operations for the removal of tonsils and adenoids in the out-patient department, and the children were taken home in an ambulance provided by the Council after the operation.

During the year 1,323 new children attended the eye department; 1,103 were tested for glasses, and of this number 772 had glasses prescribed and 141 were found not to require glasses. In regard to the other 190, no change in glasses was necessary. During the year 732 pairs of glasses were obtained but some of these were prescribed in 1932.

In the orthopaedic department 189 new children were seen, of whom 14 were found not to require treatment; 29 children were discharged cured, 43 left school, 5 left London and 6 were referred elsewhere for treatment. A number of children were referred to the massage department for treatment, and the organiser checks their attendances each week and reports to the care committees if they do not attend regularly. Seventeen children had minor operations performed in the out-patient department, and there are 574 children attending periodically for supervision.

During the year 666 new children attended the skin department, 25 of whom were suffering from ringworm of the head and 71 from scabies.

There were 129 new cases in the diphtheria carrier clinic during the year, with a total of 422 attendances.

The majority of children attending in the aural, eye and skin departments were treated at home, but where the results were not satisfactory, arrangements were made for them to have the necessary treatment carried out daily at the school treatment centres.

The numbers of children referred to the school medical officer for special examination were as follows:—Schools for the physically defective, 24; myope class, 1; hard-of-hearing school, 3; White Oak hospital, Swanley, 6; school for the mentally defective, 1; "easy treatment" for vision, 3; while 11 children were recommended for re-examination with a view to their transfer from schools for the physically defective to elementary schools.

The children's department of the Miller hospital is on two afternoons a week. There are two doctors working, and owing to the fact that the sessions are not held in the ordinary out-patient department, but in an old house, it is necessary for two organisers to attend, as the doctors' rooms are on different floors. Miller hospital.

All children up to 12 years of age are eligible to attend the department. About 500 Council school children attended as new cases during the year April, 1932—April, 1933. Of these, 47 were children with rheumatism, 44 had enuresis, 11 asthma and 10 fits. The remainder were chiefly suffering from debility and bronchitis and internal complaints. In addition, a number of children under school age and a fair number of Kent school children attend the department.

The organisers sit in the same room as the doctors, and as the doctors are very willing to co-operate with the school organisation in every way, they are able to do much useful work. During the year 24 school reports and five home reports were obtained through the care committees at the doctors' request. Twenty-one children have been referred to schools for the physically defective or open-air schools, and 39 minor recommendations for alteration in the school curriculum have been sent to the divisional medical officers. School meals have been recommended in three cases and milk in school in several others.

Children found to require dental treatment are frequently referred to the school treatment centres, also those having scabies or dirty heads are referred for treatment under the cleansing scheme.

There is a large number of rheumatism cases attending the department, and a special rheumatism clinic is held after the ordinary session for these. All new cases attend at 1.30 p.m. but if diagnosed as rheumatism, are told to attend in future at 4.30 p.m. on Mondays. There are at present 198 children attending this clinic, which is to some extent supervisory in character, as all cases, even when well, are supposed to attend every two or three months to see the doctor. Twenty-one children were referred to the Council's special hospitals for treatment for rheumatism, but these cases are dealt with by the almoner. All convalescent treatment is also arranged by her.

The parents, are on the whole, very regular in bringing their children to the hospital, but owing to the large number in attendance, there is a considerable amount of work to be done in seeing that cases really requiring treatment do not lapse. It is not possible to send for all the minor cases, but in all cases where children with anything at all serious the matter fail to return to the hospital, a post card is sent to the parents asking them to bring them back. Should they not return after that, the care committee is written to and asked to arrange for the children to re-attend the hospital. Where the organiser is in doubt as to whether it is necessary for the children to re-attend the doctors are always willing to be consulted.

The doctors at the hospital have stated that they find it of great benefit having organisers working in the department, and there is no doubt that valuable information has been given to the divisional medical officers, care committees and head teachers.

Defective children.

Admission examinations.

Examinations with a view to the admission of children to special schools, other than hospital schools, were made in 5,112 cases, a decrease of 318 from the number examined in the previous year. The following table shows the number of children nominated for examination and the recommendations made :—

Defect.	Number nominated.		Suitable for admission to						Returned to elementary school.		Invalided as for the time unfit for any school.		Notified under M.D. Acts.	
	Boys.	Girls.	Blind school.		Myope class.		Swanley.		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
			Boys.	Girls.	Boys.	Girls.	Boys.	Girls.						
Ocular	582	704	4	8	75	95	67	71	422	512	14	18	—	—
			Deaf school.		Hard of hearing class.									
			Boys.	Girls.	Boys.	Girls.								
Aural	151	133	45	27	25	30			81	73	—	3	—	—
			P.D. school.		Day open-air school.		Residential P.D. school.							
			Boys.	Girls.	Boys.	Girls.	Boys.	Girls.						
Physically defective	840	841	526	546	20	17	66	36	183	192	45	50	—	—
			M.D. school.											
			Boys.		Girls.									
Mentally defective	1,030	658	360		233				586	346	31	36	*53	*43
			Epileptic colony.											
			Boys.		Girls.									
Epileptic ...	87	86	19		16				54	45	14	25	—	—
Total cases	2,690	2,422	1,207		1,079				1,326	1,168	104	132	53	43
	5,112		2,286						2,494		236		96	

* Of these 39 boys and 33 girls were imbeciles ; 3 boys and 1 girl were idiots ; and 11 boys and 9 girls were feeble-minded.

Children admitted to P.D. schools.

The numbers of children actually attending special schools will be found in table III of the statistical tables at the end of this report.

The following statement shows the nature of the conditions found among the children certified as suitable for admission to schools for the physically defective at the admission examinations during the year :—

Morbid conditions.	Boys.	Girls.	Total.
Infantile paralysis	22	17	39
Cerebral paralysis	14	12	26
Various paralyses	16	13	29
Tuberculosis of bones and joints	89	77	166
Osteomyelitis	35	10	45
Rickets and resulting deformities	8	9	17
Congenital deformities	14	16	30
Traumata and amputations	32	13	45
Non-tuberculous arthritis and synovitis	15	15	30
Rheumatism and chorea	19	27	46
Various chest conditions—fibrosis, bronchitis, asthma ...	70	42	112
Heart diseases—			
Congenital	18	22	40
Acquired valvular	193	253	446
Non-valvular	26	39	65
Anæmia	4	5	9
Pseudo-hypertrophic muscular dystrophy	7	—	7
Various nervous conditions, ataxia, etc.	5	7	12
Other diseases—chiefly medical	5	5	10
Total	592	582	1,174

The following statement gives an analysis of the 470 cases examined for admission to special schools for the physically defective, as a result of which the children were either returned to elementary schools or were invalided as for the time unfit for any school :— Children returned to elementary schools or invalided.

Morbid conditions.	Elementary school.	Invalided.
Infantile paralysis	8	3
Cerebral paralysis	7	4
Various paralyses	9	9
Tuberculosis of bones and joints	30	6
Osteomyelitis	8	5
Rickets and resulting deformities	14	2
Congenital deformities	23	7
Traumata and amputations	13	2
Non-tuberculous arthritis and synovitis	5	2
Rheumatism and chorea	51	6
Various chest conditions—fibrosis, bronchitis, asthma	38	9
Heart diseases—		
Congenital	20	5
Acquired valvular	82	21
Non-valvular	29	5
Anæmia	22	1
Pseudo-hypertrophic muscular dystrophy	2	1
Various nervous conditions, ataxia, etc.	4	3
Other diseases—chiefly medical	10	4
Total	375	95
	470	

The special schools were visited at least once a quarter, and every child present was seen at least once during the year. The total number of examinations made was 17,960, and in addition 567 special examinations were made of children already on the rolls of special schools in connection with applications for non-enforcement of attendance and for similar reasons. As a result of the rota examinations the following re-classifications took place :— Rota visits to the schools.

Transferred from schools for	Re-classified for transfer to—							
	P.D. school.	M.D. school.	Sight saving school.	Blind school.	Deaf school.	Hard of hearing school.	Open-air school.	Epileptic colony.
Physically defective	–	12	2	–	1	2	5	2
Mentally defective	5	–	2	–	1	–	–	1
Sight saving	1	1	–	2	–	–	1	–
Blind	–	–	17	–	–	–	–	–
Deaf	–	2	–	–	–	9	–	–
Hard of hearing	–	1	1	–	16	–	–	–

After trial in a special school, 70 children were excluded (51 as imbecile, 15 as feeble-minded ineducable and 4 as feeble minded "detrimental") and 34 were invalided on medical grounds.

There were also 625 cases returned, on improvement, to elementary schools, or, when over 14 years of age, deemed to be no longer certifiable. The details are as follow :—

Action taken.	Special school classification.						
	P.D.	M.D.	Blind.	Deaf.	Sight saving.	Hard of hearing.	Total.
Returned, on improvement, to elementary schools	225	20	–	1	15	12	273
Over 14 years of age and excluded as no longer certifiable	208	67	4	1	72	–	352
Total	433	87	4	2	87	12	625

Decertification of physically defective children.

The following table classifies the children who improved to such an extent that they were able to return from the schools for physically defective children to the ordinary elementary schools, or were "no longer certifiable" as defective between the ages of 14 and 16 years :—

Defect.	Cases deemed no longer certifiable.	Cases deemed fit to return to elementary schools.
Infantile paralysis	23	14
Cerebral paralysis	–	1
Various paralyses	4	7
Tuberculosis of bones and joints	21	21
Osteomyelitis	6	2
Rickets and resulting deformities	2	14
Congenital deformities	3	8
Traumata and amputations	8	11
Non-tuberculous arthritis and synovitis	1	13
Rheumatism and chorea	20	35
Various chest conditions—fibrosis, bronchitis, asthma	3	3
Heart diseases—		
Congenital	13	4
Acquired valvular	64	43
Non-valvular	34	41
Anæmia	1	1
Various nervous conditions—ataxia, etc.	3	2
Other diseases—chiefly medical	2	5
Total	208	225
	433	

Absentees in schools for physically defective children.

Dr. G. Slot has inquired into the question of the absence of children from schools for physically defective children, and his conclusions are summarised below. The reasons given for absence in many instances are not peculiar to schools for physically defective children, but are liable to be exaggerated in these cases.

Some parents are over anxious and keep their children away on the least provocation—often unmindful of the fact that in school efficient medical attention is available through the services of a school nurse who is in attendance at every school for physically defective children, and that in many instances children are quieter and warmer in school than at home.

Some children are kept at home because they are useful in looking after other children if the mother goes out to work, or so that in the event of the mother's illness they can be employed on household duties. With a physically defective child, it is easier for an excuse to be made on health grounds than with a healthy child.

Medical practitioners are to some extent responsible for absentees on medical certificates, etc. (this includes both hospital and general practitioners). Many inquiries have convinced me that, in London at any rate, the work and function of a school for physically defective children are not fully realised by the medical profession. Certificates are granted to exclude children for the very diseases that the schools exist to treat; it is not sufficiently realised that there will be more rest and quiet at school than at home, and a certificate of exclusion may mean nothing more than a licence to play in the streets. Junior house officers at the big hospitals are constantly changing and, as in many cases it is they who are advising the case, continuity of advice and treatment is not always attained. Moreover, these officers do not know the purpose, or indeed in some instances are not aware of the very existence of a school for physically defective children. It is not sufficiently realised that in the home conditions which rule in many cases, rest and quiet are almost impossible. Some children are unconscious or subconscious malingerers for a variety of reasons. They may not get on well with the other children or be bad "mixers"; they may be in a class where they do not like the teacher or they may be backward; an ache or pain backed by a vague hospital command "to rest" can easily persuade the complacent parent of such a child, who is often spoiled, to keep him at home, and it is not difficult to get a medical certificate to back the parent's opinion. Such certificates are of course given in all good faith, but without any real knowledge of the comparative benefits which are likely to accrue from staying at home or going to school. It is common for children in schools for the physically defective to require days off for ill health, hospital or clinic attendance, etc., so that possibly longer periods of time elapse without a certificate being required in these cases than in the case of elementary school children. Holidays for hop-picking, etc., cause some absences in these schools just as in ordinary elementary schools. Lastly, of course, there are the cases of children in hospitals on convalescence or who are genuinely ill at home.

Children sometimes miss the ambulance owing to lack of organisation at home, when the child is on the early ambulance round as distinct from the late round. This lack results in the child not being ready for the ambulance. Children often miss the ambulance because they may live in small alleys or passages down which it is not possible for the ambulance to go. They have to wait at "points" in the road and, in cold or wet weather, parents are afraid of bad results if too long a wait ensues. Another reason given when children miss the ambulance, and so school, is that they have had disturbed nights and have been allowed to sleep late in the morning.

After-histories of tuberculous children.

Particulars concerning the after-histories of children discharged from hospitals and sanatoria during the years 1923 to 1927 have been obtained, and the following tables show the distribution of pulmonary and non-pulmonary cases :—

I.—*Pulmonary cases.*

Year.	Total.				Percentage alive 5 years after discharge.				Percentage dead.			
	A.	B.1.	B.2.	B.3.	A.	B.1.*	B.2.	B.3.	A.	B.1.*	B.2.	B.3.
1923	136	7	18	35	88·7	71·4	11·1	14·3	11·3	28·6	88·9	85·7
1924	113	3	22	37	92·9	100·0	22·7	2·7	7·1	—	77·3	97·3
1925	148	5	35	27	93·2	80·0	37·1	—	6·8	20·0	62·9	100·0
1926	140	5	19	26	91·6	20·0	52·7	3·9	8·4	80·0	47·3	96·1
1927	143	2	18	25	91·6	50·0	33·3	—	8·4	50·0	66·7	100·0

* Percentages based on very small numbers.

II.—*Non-Pulmonary cases.*

Year.	Total.					Percentage alive 5 years after discharge.					Percentage dead.				
	Hip.	Spine.	Other bones.	Glands	Other parts.	Hip.	Spine.	Other bones.	Glands.	Other parts.	Hip.	Spine.	Other bones.	Glands.	Other parts.
1923	62	38	64	100	14	88·7	73·7	98·4	93·0	78·6	11·3	26·3	1·6	7·0	21·4
1924	69	49	89	149	28	81·2	71·4	92·0	95·3	92·9	18·8	28·6	8·0	4·7	7·1
1925	74	44	85	134	30	86·5	70·6	94·1	94·8	80·0	13·5	29·4	5·9	5·2	20·0
1926	64	41	89	212	43	90·6	87·8	95·5	94·9	95·3	9·4	12·2	4·5	5·1	4·7
1927	69	58	61	271	25	75·5	84·5	93·5	97·8	100·0	14·5	15·5	6·5	2·2	—

Deaf children.

During the year Mr. Wells examined 284 children with defective hearing, the decisions regarding whom are set out on page 75. The cause of deafness in the partially deaf, deaf and defective, and deaf, seen for the first time during the year, was found in 48 cases to be congenital, and in 214 cases acquired, while in 22 cases the cause was uncertain. The congenital cases were classified as follows :—

Cause of deafness.

True hereditary deafness	5
Sporadic deaf birth	38
Aphasia	5
Total	48

The acquired cases were classified as :—

Cause of deafness.

Disease of the nervous system	11
Infectious fevers	11
Other infectious disease	16
Nasal obstruction	22
Ear disease	153
Injury	1
Total	214

Mr. Wells also visited the schools for the deaf and partially deaf and examined all the children. As a result, 12 children in schools for the partially deaf and one child in a deaf school were returned to elementary schools as having improved. One child in a school for the deaf was found to have improved, and being over 14 years of age was allowed to leave. The reclassification table on page 75 gives particulars of the re-allocation of 29 children already in attendance at special schools.

Mental Deficiency Acts. Cases notified to the local authority.

The following table shows the number of cases notified by the education authority under Section 2 (2) of the Mental Deficiency Act, 1913, as amended by the Mental Deficiency Act, 1927, during the year 1933 (the figures in brackets being those for the previous year):—

	Boys.		*Girls.*	
(*a*) Feeble-minded—				
(1) Leavers	169	(124) ...	186	(128)
(2) Detrimental	3	(3) ...	3	(2)
(3) Special circumstances ...	—	(2) ...	1	(2)
(4) Ineducable	17	(12) ...	11	(15)
(*b*) Imbeciles	72	(78) ...	67	(82)
(*c*) Idiots	5	(3) ...	3	(4)
	266	(222)	271	(233)
Total ...	*537 (455)			

* Includes 16 children (12 imbecile, 4 idiot), who were admitted to institutions under the Metropolitan Asylums Board Order, 1911, and on attaining the age of 7 years were notified by the local education authority in order to bring them within the scope of the Mental Deficiency Acts.

After-careers.

The chief officer of the mental hospitals department has furnished the following return for the year 1933 on after-care of children formerly attending special schools for the mentally defective, but whose names were not notified to the Mental Hospitals Committee as being cases in which the Education Committee were of opinion that further aid in the form of supervision, guardianship or institutional care under the Mental Deficiency Acts was necessary:—

Classification.	Male.	Female.	Total.	Grand total under headings.
(1) Number of children born in or subsequent to 1915 who have left special schools and who were on the books of the supervision section on 31st December, 1933	404	214	618	618
(2) Number who after trial have proved themselves to be incapable by reason of mental or physical defect of undertaking remunerative employment	14	6	20	20
(3) Number employed as under:—				
(*a*) Industrial or manual occupations (i.e., factory work, trade or any part of a trade)	235	145	380	
(*b*) Agricultural or rural occupations	1	—	1	
(*c*) Domestic occupations—				
M. F. Total				
(1) Receiving remuneration 5 20 25				
(2) Required for work at home 1 8 9				
	6	28	34	
(*d*) Commercial, shop assistant, or selling behind a counter, office boys or girls	15	3	18	
(*e*) Gone into army, navy or merchant service	—	—	—	
(*f*) Blind alley or other precarious occupations (i.e., vanboys, newsboys, errand boys and girls, selling from a barrow)	72	6	78	511
(4) Number judged to be employable but out of work	36	9	45	45
(5) Number whose careers have not been traced:—				
(*a*) Not visited and not seen at bureaux ...	21	12	33	
(*b*) Visited but no information obtainable ...	4	5	9	42
(6) Cases dealt with in addition to above including those who have since:—				
(*a*) died	—	—	—	
(*b*) attained the age of 18 years	248	127	375	
(*c*) been dealt with under M.D. Act	23	26	49	
(*d*) been lost sight of, or have left London ...	13	5	18	442

N.B.—In addition to the 618 after-care cases shown in the above return there were 524 boys and girls between 16 and 18 years of age who had left special schools and were under statutory supervision on 31st December, 1933. These also were on the books of the supervision section for placing in employment.

Enquiry regarding children of mentally defective parents.

During the year a survey of the children of parents, one of whom had been dealt with under the Mental Deficiency Acts, or who had formerly attended a special school, was conducted at the request of the Special Committee of the Board of Control.

The social circumstances were investigated by Miss M. A. Thomas, M.A., and as many children as possible were seen by Drs. J. G. Duncan and A. C. Williams, whose report appears in Volume III (Part I) of this Report.

Dr. Shrubsall has further analysed the returns with a view to ascertaining whether there is any difference between the children of defectives of different sexes, or between the children of married and unmarried women. It will be appreciated that practically all the male parents were married, since there is no means of tracing the offspring of unmarried male defectives.

For the purpose of comparison, the intelligence quotient, i.e., the mental age as ascertained by tests divided by the chronological age in the case of children, or by 14 in the case of those above that age, has been utilised. The quotient in the case of the parents has been based on the result of the examination on the occasion on which they were last seen. The average quotient of all parents was 60·4, and of all the children 82·7. Analysing the results further the following results were obtained :—

TABLE I.

Defective parent.	Number.	Average intelligence quotient.
Father	36	63·0
Married mother	88	61·0
Unmarried mother	150	59·5

The average intelligence quotient of the children under each category was as follows :—

TABLE II.

Defective parents.	Father.		Mother (married).		Mother (unmarried).	
	No.	Intelligence quotient of children.	No.	Intelligence quotient of children.	No.	Intelligence quotient of children.
Children.						
Boys	35	86·0	75	85·6	87	77·9
Girls	27	88·8	58	85·2	82	79·8

For comparison there is given below the corresponding average intelligence quotients for children one of whose parents had attended a special school for the mentally defective, but had not required to be dealt with under the Mental Deficiency Acts as a social failure. The intelligence quotient of the parent is not known in these instances, but would range between 60 and 70.

TABLE III.

Defective parents.	Father. (25 cases).		Mother (married). (53 cases).		Mother (unmarried). (12 cases).	
	No.	Intelligence quotient of children.	No.	Intelligence quotient of children.	No.	Intelligence quotient of children.
Children.						
Boys	30	85·3	67	88·6	14	87·1
Girls	28	85·3	73	88·1	20	83·5

The range of variation in the children of parents of the different categories was as follows :—

TABLE IV.

Parent dealt with under the Mental Deficiency Acts.					Parent attended a special school.				
Intelligence quotient of childr'n	Male.	Married woman.	Unmarried woman.	Total.	Intelligence quotient of childr'n	Male.	Married woman.	Unmarried woman.	Total.
30	—	—	2	2	30	—	—	—	—
35	—	2	1	3	35	—	—	—	—
40	—	3	4	7	40	1	1	—	2
45	—	—	4	4	45	—	—	—	—
50	2	3	4	9	50	—	1	1	2
55	—	1	4	5	55	—	—	2	2
60	1	1	11	13	60	—	8	2	10
65	—	1	8	9	65	3	4	1	8
70	4	7	19	30	70	5	5	2	12
75	8	11	15	34	75	8	7	3	18
80	10	16	22	48	80	4	12	3	19
85	4	24	18	46	85	10	17	4	31
90	9	18	17	44	90	9	25	2	36
95	4	13	17	34	95	8	21	5	34
100	13	25	14	52	100	7	27	6	40
105	6	5	3	14	105	2	6	1	9
110	1	2	—	3	110	—	3	1	4
115	—	1	6	7	115	1	2	—	3
120	—	—	—	—	120	—	1	—	1
125	—	—	—	—	125	—	—	—	—
130	—	—	—	—	130	—	—	1	1
Total	62	133	169	364	Total	58	140	34	232

It will be noticed that in the case of those dealt with under the Mental Deficiency Acts, the average intelligence of the unmarried mothers is distinctly below that of the other groups, and there is no material difference between that of married male defectives under the Mental Deficiency Acts and of married male defectives who attended special schools, but in the case of married women the children of those who had only attended special schools are distinctly above those of the others, though in view of the small number involved the figures may not have great statistical significance.

The degree of scattering of the results is most marked in the case of unmarried mothers, where it seems possible that at the lower end of the scale it was the lack of mentality that led to the seduction of the defective, and that at the higher end it was the birth of the illegitimate child that brought the defective to notice, when she was forced to seek public assistance and thus to become a subject to be dealt with under the Acts.

From the standpoint of a study of heredity the figures are naturally very much depreciated in value owing to the lack of the quantitative analysis of the mentality of the second parent.

Table V compares the intelligence quotients of the 274 parents who had been dealt with under the Mental Deficiency Acts, and of their 364 children. This, like previous tables, indicates that the intelligence of the children is usually superior to that of the parents, but the correlation between the two does not appear to be significant.

TABLE V.

Intelligence quotient of children	Intelligence quotient of parents.													Total No.
	25.	30.	35.	40.	45.	50.	55.	60.	65.	70.	75.	80.	85.	
30	—	—	—	—	—	1	—	—	—	—	1	—	—	2
35	—	—	—	1	—	1	—	1	—	—	—	—	—	3
40	—	—	—	—	—	3	1	2	1	—	—	—	—	7
45	1	—	—	—	—	1	—	1	1	—	—	—	—	4
50	—	—	—	—	1	4	—	2	—	1	1	—	—	9
55	—	—	—	1	—	—	1	2	1	—	—	—	—	5
60	—	—	—	3	1	2	5	1	1	—	—	—	—	13
65	—	—	—	—	—	3	2	1	1	1	—	1	—	9
70	—	—	1	—	1	8	6	6	2	3	2	—	1	30
75	—	—	—	1	1	9	3	11	1	5	2	1	—	34
80	—	—	—	1	—	5	12	9	8	6	6	1	—	48
85	—	—	—	—	1	8	14	9	7	7	—	—	—	46
90	—	—	—	—	1	9	4	18	6	4	1	—	1	44
95	—	—	—	—	1	4	6	9	4	7	1	—	2	34
100	—	—	—	—	2	7	18	12	6	5	1	—	1	52
105	—	—	—	—	—	2	3	2	3	3	1	—	—	14
110	—	—	—	—	1	—	1	—	1	—	—	—	—	3
115	—	—	—	—	—	2	1	—	2	—	2	—	—	7

Mentally defective children—defective speech.

A classification as regards speech defect in 200 children attending two schools for the mentally defective was made by Mrs. D. G. Harries, one of the assistants engaged in the remedial courses for stammering children, with the following results :—

Normal speech—Good speech	10		
Dull speech	70		
	—	80	
Slurred speech		68	
Defective speech—Stammer	3		
Cleft palate	3		
Lalling	3		
Lisping	43		
	—	52	

Ponton-road remand home.

The medical supervision of Ponton-road remand home has been carried out by Dr. E. B. Argles, and from his detailed report the following summary has been extracted :—

During the year 1933 the total number of admissions was 1,328, made up as follows at the end of the year :—Boys, 1,172 ; girls, 135 ; place of safety cases, 7 ; lodgers, 8 ; in hospital, 6.

This shows an increase over last year of 263—the average daily number in detention being 47·9 as against 42·8 for 1932.

Cases were received from courts in the London area, and from courts in the counties of Essex, Kent, Hertfordshire, Middlesex, the boroughs of East Ham, West Ham, Southend, and the City of London.

Out-county cases comprised about 37 per cent. as against 32 per cent. last year, and cases from the London area 63 per cent. as against 68 per cent. for 1932. From within the county the largest number came as hitherto from Toynbee Hall and Islington juvenile courts.

Special reports were called for in 216 cases.

Table I shows the number and variety of the charges. As in 1932 stealing and allied offences account for a very large proportion of the total, in boys 74 per cent. as against 67 per cent. in 1932, and in girls about 40 per cent. in each of the two years. With the coming into force of the Children and Young Persons Act in November, and the consequent raising of the age for admission to the remand home to 17, it was anticipated that an increase of 300 would have to be dealt with in a full year. In November and December 55 of those charged were over 16 years of age.

Table II shows the incidence of physical defects or departures from the normal. The figures for nutrition and physique both show an improvement, and—for the small number of children affected—those for heart and lung disease are rather higher. Anæmia and rickets are both more in evidence than in 1932, and the figures for dental decay are higher. The high figure

for nose and throat affections is due to the fact that all children having any abnormality that would be noted for treatment or observation at a school examination have been counted. Deformities include all grades of flat-foot, knock-knee, scoliosis, etc. Dirty heads numbered 129.

Table III is an analysis of the 512 cases of sickness, injury, or minor ailment amongst the children and staff. Tonsillitis was rather prevalent but all cases made a rapid recovery. In all 38 children were sent to hospital.

On 1st November the work of mental examinations was taken over by Miss Fildes, Ph.D., of the London child guidance clinic. The figures in Table IV show the results of her examinations and of those of the medical officer for the earlier months. Thirty-one children were deemed to be certifiable as mentally deficient or feeble-minded, and there was one moral defective.

Compared with the figures for 1932, educational attainments show a higher level of purely academic knowledge. Particulars are set out in Table V.

The co-operation of the superintendent, Mr. M. T. Jones, and the staff has been of great assistance in the keeping of records and in the medical work generally.

TABLE I.

Ponton-road remand home—List of offences.

Offences.	Boys.	Girls.
Stealing	537	36
Attempt to steal	9	—
Breaking, entering and stealing	136	—
Breaking and entering	17	—
Larceny	130	17
Felony	12	—
Shop-breaking	14	—
House-breaking	11	—
Suspected person	32	—
Embezzlement	13	—
Fraudulent conversion	2	1
Being on enclosed premises	3	—
Defrauding	1	—
Unlawful possession	15	1
False pretences	4	2
Begging	6	—
Destitute	4	1
Beyond control	93	18
Breach of recognisance	24	5
Wandering	30	14
Vagrancy	4	—
Assault	9	1
Throwing stones	1	—
Breaking window	1	—
Arson	6	—
Education Act cases	10	10
Wilful damage	17	2
Unlawful wounding	2	—
Needing care and protection	1	4
Attempted suicide	2	2
Insulting words and behaviour	3	1
Loitering	1	1
Parents of criminal habits	2	4
Soliciting males	1	—
Indecent assault	9	1
Indecent exposure	1	—
Living in circumstances of moral danger	1	8
Frequenting company of prostitutes	—	1
Residing with prostitute	7	5
Incest	1	—
Total	1,172	135
Place of safety cases	7	
Lodgers	8	
In hospital (no records available)	6	
Grand Total	1,328	

TABLE II. *Ponton-road remand home.—Physical defects.*

Defect.	Boys (1172).		Girls (135).	
	No.	Percentage.	No.	Percentage.
Fair nutrition	510	43·5	34	25·2
Poor nutrition	131	11·2	6	4·4
Malnutrituion	2	·2	—	—
Fair physique	507	43·3	32	23·7
Poor physique	142	12·1	9	6·7
Very poor physique	1	·1	—	—
Heart	35	3·0	4	3·0
Lungs	56	4·8	6	4·4
Vision—				
6/9 or 6/12	118	10·1	17	12·6
Worse than 6/12	155	13·2	25	18·5
Diseases of eyes	26	2·2	4	3·0
Squint and ptosis	19	1·6	3	2·2
Colour blindness (total)	1	·1	—	—
„ „ (partial) ...	7	·6	1	·7
Teeth (three or more decayed) ...	124	10·6	17	12·6
Nose and throat	249	21·3	28	20·7
Ear disease	31	2·6	1	·7
Deaf or hard-of-hearing	4	·3	1	·7
Rickets	123	10·5	5	3·7
Sores and impetigo	51	4·4	4	3·0
Other skin diseases	91	7·8	10	7·4
Anæmia	184	15·7	27	20·0
Enlarged glands	85	7·3	3	2·2
Deformities	148	12·6	20	14·8
Errors of development	66	5·6	—	—
Scars of operations	95	8·1	6	4·4
Hernia (actual)	3	·2	—	—
„ (tendency)	11	1·3	—	—
Affections of testis and cord ...	7	·6	—	—
Infectious diseases...	4	·3	2	1·5
Rheumatism (actual)	2	·2	1	·7
„ (history)	9	·8	3	2·2
Chorea (history)	6	·5	—	—
Epilepsy (history)	4	·3	—	—
Tic	2	·2	1	·7
Somnambulism	1	·1	—	—
Speech defects	22	1 9	—	—
Enuresis	116	9·9	4	3·0
Stigmata of mental defect ...	8	·7	1	·7
Albuminuria	2	·2	—	—
Stigmata of congenital syphilis ...	5	·4	1	·7
*Varia	36	3·1	8	5·9

*Varia includes such diseases or affections as dyspepsia, constipation, phimosis and fractures.

TABLE III.

Ponton-road remand home.—Cases of sickness and minor ailments treated.

Infectious diseases	7	Accidents	55
Eye disease	34	Synovitis	1
Ear disease	25	Amputation	1
Gastritis and bilious attacks	14	Gun shot wound	1
Constipation	11	Vaginal discharge	6
Abdominal pain	1	Worms	1
Ringworm	3	Headache and neuralgia ...	13
Chilblains	1	Epilepsy	1
Boils	14	Acute hysteria	1
Scabies	2	Rheumatism	5
Burns	1	Debility	2
Other skin diseases... ...	166	Abscess	5
Disease of chest	25	Septic finger and whitlow	2
Tonsillitis	99	Painful breast	1
Swabs taken	10	Albuminuria	1
Adenitis	3		

TABLE IV.

Ponton-road remand home.—Results of intelligence and education tests.

Mental age (medical officer's figures, January to October inclusive).—1,055 cases.

Age.	Retardation.							
	Testing to age.	1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.
14 or over	155	53	66	31	32	10	4	1
13 to 14	81	35	29	30	3	4	2	—
12 to 13	75	36	48	11	3	1	1	—
11 to 12	48	52	19	5	2	1	—	—
10 to 11	68	23	10	6	1	—	—	—
9 to 10	33	19	2	—	—	—	—	—
8 to 9	15	6	2	1	—	—	—	—
7 to 8	13	3	2	—	—	—	—	—
6 to 7	2	1	—	—	—	—	—	—
5 to 6	2	2	—	—	—	—	—	—
Under 5	5	1	—	—	—	—	—	—
Percentage	47·1	21·9	16·9	7·9	3·9	1·5	·7	·1
,, 1932	29·5	22·8	23·5	12·5	6·6	3·2	1·9	—

Mental age (psychologist's figures, November and December).—229 cases.

Age.	Testing to age.	1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.
14 or over	43	14	22	20	12	6	2	2
13 to 14	18	8	2	8	1	—	—	—
12 to 13	10	2	8	3	1	—	—	—
11 to 12	2	4	4	2	—	—	—	—
10 to 11	15	5	1	—	—	—	—	—
9 to 10	12	—	—	—	—	—	—	—
8 to 9	2	—	—	—	—	—	—	—
7 to 8	—	—	—	—	—	—	—	—
6 to 7	—	—	—	—	—	—	—	—
5 to 6	—	—	—	—	—	—	—	—
Under 5	—	—	—	—	—	—	—	—
Percentage	44·5	14·4	16·2	14·4	6·1	2·6	·9	·9

TABLE V.

Ponton-road remand home.—Educational attainments.

Reading (1,284 cases with complete records) :—

Age.	Testing to age.	1 year retarded.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.
14 and over	205	63	50	53	46	18	11	27
13 to 14	93	46	27	29	10	6	7	5
12 to 13	100	29	26	22	13	5	3	1
11 to 12	63	32	12	15	9	3	2	3
10 to 11	80	17	9	12	4	3	4	—
9 to 10	28	7	13	7	6	5	—	—
8 to 9	8	7	2	4	4	1	—	—
7 to 8	3	5	2	8	—	—	—	—
6 to 7	1	—	—	—	—	—	—	—
5 to 6	2	2	—	—	—	—	—	—
Under 5	6	—	—	—	—	—	—	—
Percentage	45·8	16·2	11·0	11·7	7·2	3·2	2·1	2·8
,, 1932	34·9	19·6	15·1	11·8	6·8	4·4	7·4	—

Calculation (1,284 cases with complete records).

Age.	Testing to age.	1 year retarded.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.
14 and over	110	31	44	70	100	49	27	42
13 to 14	46	29	36	47	35	17	8	3
12 to 13	32	27	71	34	23	9	2	1
11 to 12	36	23	37	21	16	3	3	—
10 to 11	42	37	29	13	6	2	—	—
9 to 10	18	24	18	6	—	—	—	—
8 to 9	3	12	6	4	1	—	—	—
7 to 8	2	9	3	4	—	—	—	—
6 to 7	1	—	2	—	—	—	—	—
5 to 6	3	1	—	—	—	—	—	—
Under 5	6	—	—	—	—	—	—	—
Percentage	23·3	15·0	19·2	15·5	14·1	6·2	3·1	3·6
,, 1932	14·0	16·4	18·3	18·6	16·6	8·5	7·5	—

Child Guidance.

The Council as local education authority does not undertake, as part of its social activities, any direct responsibility in connection with the work of child guidance, nor is any public money expended by the Education Committee in subsidising this work. The Council has, however, as part of the functions of the mental hospitals service, arranged a clinic at the Maudsley hospital, Denmark-hill, where school children, amongst others, receive psychotherapy. The bulk of the work connected with child guidance in London is, however, undertaken by various voluntary hospitals and associations.

The Council allows the use of the school organisation in connection with the work generally, and at three of the clinics the attendances of children are allowed to be counted as attendances at school. These three clinics are the London child guidance clinic, 1 Canonbury-place, N.1, the East London clinic, Jews' Free School, Spitalfields, E.1, and the Maudsley hospital clinic, Denmark-hill, S.E.5. From a survey of the reports submitted by the authorities of the clinics it appears that useful work is being undertaken in helping those difficult school cases which had in the past caused great anxiety owing to a lack of facilities for psychotherapeutic advice.

London child guidance clinic.

The work at the London child guidance clinic has continued during the year under the direction of Dr. William Moodie, who has supplied the following information as to the activities of the clinic. During 1933 there were 155 children from Council schools referred to the clinic, of whom 103 were boys and 52 girls. The maximum age incidence in boys was between 10 and 13 years, and in girls, between 9 and 10 years.

The three main types of service given were (*a*) prolonged and intensive treatment directed to more than one aspect of the case, for instance psychiatric treatment of the child and social work in the home, special tuition together with psychiatric treatment, and so on; (*b*) treatment directed on one aspect only, such as psychiatry, tuition, or modification of the child's surroundings; and (*c*) direct advice with, on occasion, treatment of a lesser type.

Close co-operation has been maintained with school care committees and head teachers, both in regard to the provision of useful information and recommendations for treatment. Frequent visits have been paid by teachers to the clinic to discuss the problems of individual pupils.

Play groups have been greatly developed throughout the year. Their purpose is fourfold, the groups being designed (1) for observation pending diagnosis; (2) for preparation for school (pre-school play group); (3) for purposes of socialisation; and (4) to give opportunities for achievement in play, thus fostering a better attitude to work. The use of individual play as a direct psychotherapeutic method was increasingly practised, and its value was clearly apparent in many cases.

The following tables show the sources of reference of the cases, and the reasons for reference :—

Source of reference.	
Head teachers	21
Care committees and district organisers	44
London County Council (school doctors, etc.)	28
Parents, relatives and friends	22
Hospitals	9
Charity Organisation Society	3
Invalid Children's Aid Association ...	2
Private doctors	4
Probation officer	4
Barbican Mission to Jews	3
Parents' employer	2
Children's Aid Society	2
Other sources	11
Total	155

Reasons for reference.	
Backwardness	20
Nervousness	25
Theft	19
Enuresis	15
Unmanageable	15
Temper tantrums	10
Stammering and speech defects ...	8
Truancy and wandering	5
Sex troubles	3
Night terrors and fears	3
Lack of concentration	5
Screaming fits	5
Lying	3
Spitefulness	2
Defiance	2
Depression	2
Vocation guidance and psychological examination	3
Sleeping difficulties	2
Word blindness	1
Petit mal	1
Negativistic	1
Restlessness	1
Feeding difficulties	1
Attention-getting behaviour	1
Mirror writing	1
Attacks of malaria coincident with father's	1
Total	155

The results of treatment were as follows :—

Cases closed.	
Satisfactorily adjusted	16
Partially adjusted	4
No definite result	13
Unadjusted or unsuitable	11
Advice only or some minor treatment	50
Cases still under treatment.	
Showing improvement	45
No evident improvement	16
Total	155

The activities of the clinic are not confined to the treatment of children. Academic training of students for the diploma in psychology as well as the mental health course at the London School of Economics is undertaken by a training unit distinct from the ordinary service unit.

A course of practical instruction was also given in conjunction with the Institute of Education, and the clinic participated in the training course for workers in the National children's homes.

Since November, 1933, the clinic has carried out on behalf of the Council the psychological examination of children in the place of detention.

Monthly open case conferences were held and discussions were organised for special parties, notably for students from training colleges and other educational centres. Lectures were given by the staff outside the clinic, and the director, Dr. Moodie, affirms that from the attendances and discussions at these lectures it is clear that a great interest in child guidance is growing up in this country, and that there is already a widespread appreciation of the value and soundness of the work.

East London child guidance clinic.

The East London child guidance clinic is established by the Jewish Health Organisation of Great Britain, at the Jews' Free School, Spitalfields, under the direction of Dr. Emanuel Miller. Children of all creeds are dealt with at the clinic.

During the year 121 children were referred to the clinic, of whom 74 were boys, and 47 girls.

The age distribution was as follows :—under 5 years of age, 2 ; between 5 and 14 years of age, 118 ; over 14 years, 1.

Source of reference.

School doctors	48
Head teachers	10
Care committees	11
Hospitals and clinics	12
Parents	12
Private doctors	3
Children's courts	13
Probation officers and various agencies	12
Total	121

N.B.—In addition there were 39 cases dealt with which had commenced treatment during 1932.

Reasons for reference.

Theft	16
Nervousness, excitability, restlessness, depression	55
Backwardness	20
Enuresis	19
Beyond parental control	23
Unmanageable at school	6
Aggressive, spiteful	13
Night terrors, sleep walking	13
Stammering and other speech difficulties	20
Temper tantrums	4
Lack of concentration	2
Headache	2
Habit spasm	5
Truancy	5
Wandering	1
Solitary	3
Masturbation and sex difficulties	2
Reading disability	1
Food fads	2
Breathing difficulty	1
Cyclic vomiting	1
Photophobia	1
Temporary lapses of consciousness	1

N.B.—One child may be referred for more than one reason.

The results of treatment were as follows :—

Satisfactorily adjusted	50
Partially adjusted	31
Unadjusted or unsuitable	*47
Still under treatment	88

*18 were found to be of low intelligence, either border-line cases or actually mentally defective, 4 were transferred elsewhere.

Maudsley hospital guidance clinic.

The work at the guidance clinic organised at the Maudsley hospital has continued under the direction of Dr. Mapother. The school care committees and head teachers have co-operated in supplying information to the clinic and in carrying out recommendations in regard to the treatment of many of the cases. During the year 293 children of school age were dealt with, of whom 168 were boys and 125 girls.

Source of reference.

Care committees	113
School authorities (other than care committees)	40
Spontaneous	38
Hospitals	37
Private doctors	17
Probation officers	12
Maudsley hospital (other departments)	20
Other sources	16
Total	293

Reasons for reference.

Nervousness	18
Behaviour disorders	61
Enuresis	38
Anxiety state	32
Backwardness	16
Stealing	16
Constitutional anxiety	12
Stammering	8
Hysterical condition	8
Chorea	7
Truancy and wandering	6
Habit spasm	6
Obsessional state	4
Depression	4
Sleep walking	4
Specific educational difficulty	3
Tic	3
Masturbation	3
Sex difficulties	2
Fæcal incontinence	2
Temper tantrums	2
Timid and fidgety	1
Insomnia	1
Screaming attacks	1
Periodic excitement	1
Confusional state	1
Not stated	33
Total	293

The results of treatment were as follows :—

Satisfactorily adjusted	16
Partially adjusted	38
Unadjusted or unsuitable	51
Failed to attend	2
Advice only given	3
Psychological test only	6
Still under treatment	177
Total	293

Nursery schools.

Dr. E. M. McVail reports that accommodation in nursery schools has, during the year, 1933, remained unchanged, viz., 1,044 places in 15 schools. Of this accommodation, 500 places in 3 schools are maintained, and 544 places in 12 schools are aided.

Nine schools, including the 3 maintained, have a Council doctor, whilst 6 aided schools make their own arrangements. Children in all schools are seen at least once a year and in many once a term, special cases being examined more frequently.

All except 3 aided schools have a Council nurse, who visits daily for treatment of minor ailments, advice as to suspected infectious disease and inspection for cleanliness.

The three schools without a Council nurse make their own arrangements. At one, a voluntary worker with Red Cross certificates and training in home nursing attends daily. At another, a member of the staff with some years of V.A.D. experience carries out the duties of the nurse. At the third the superintendent has had much general experience with children, and when in difficulty she sends them to a dispensary close at hand where there is a doctor in attendance every morning. The school doctor comes in any emergency, 18 visits being paid last year for an average roll of 47 children.

Council treament centres are available for the treatment of nursery school children, and at most schools the parents co-operate well by having medical recommendations carried out. Owing to changes in tabulation forms during the year, exact figures regarding treatment at every school are not available. Children with rickets as a rule improve markedly with the nursery school régime—fresh air, exercise, milk, cod-liver oil and suitable food—and hospital treatment is only exceptionally necessary. Of 341 dental cases 158 received treatment, and 30 out of 44 cases of vision or squint. Cases for observation and for treatment were not always differentiated in the returns, but it is evident from reports of the school doctors that, in nearly all schools, the great majority of serious defects received treatment. More exact details should be available next year.

Medical inspection at secondary and trade schools.

In the maintained secondary schools medical inspection has been carried out by the school medical staff over a very long period of years.

The pupils are, in accordance with the instructions of the Board of Education, inspected in detail on entrance, again at the age of 12, and at the age of 15 ; in the intervening years the records of all pupils are reviewed, but a detailed examination is only carried out when there is some special indication or request.

The figures subsequently analysed are derived only from the schools where the medical inspections are carried out by the Council's own staff. No detailed reports of medical inspections are received from the schools at which the pupils are examined by the doctor appointed by the governors, but the record cards of all scholarship children examined are sent for the school medical officer's inspection at the end of each term.

Including students in training colleges, 13,629 pupils were examined during the year, a decrease of 593 compared with the previous year. Amongst these the number of routine age group examinations was 6,809 and of special examinations 6,820. Further details of the distribution of these students in the various institutions

are given in the Appendix (table VII). In addition to the above, the records of 3,960 pupils not in the age groups were reviewed, but detailed examinations were not deemed necessary. As might be expected, the children in the secondary schools show a general superiority in physical fitness over children in the elementary schools, but in one case the clothing was found to be poor and in one infestation with head vermin was noted.

Dental condition.

The percentage of children, aged 12, with sound teeth was : boys 75·6 ; girls, 78·3 ; but at the age of 15 this percentage had increased by 1·8 per cent. among boys and 1·5 per cent. among girls. Of cases of widespread dental decay where 4 or more teeth were affected, the percentage among boys and girls of 12 years old was 1·0 in each sex, compared with 1·3 and 1·1 in elementary schools at this age.

In the previous year the 12-year old children had better teeth (78·7 sound amongst boys and 80·3 sound amongst girls), and the dental condition of the 15-year old children was worse than that of the 12-year old instead of better, as is found this year.

Vision.

At the age of 12, 70·2 per cent. of the boys and 68·4 per cent. of the girls were able to pass the vision test, compared with 64·1 and 62·5 in elementary schools ; but, whereas in elementary schools the vision of children leaving is better than that of the children of 12, the reverse is the case in the secondary schools, suggesting that the more serious strain in reading has a detrimental effect upon the eyesight. In secondary schools 14·7 per cent. of the boys and 16·7 per cent. of girls were wearing glasses at the age of 12, but at the age of 15 the percentages were 18·4 boys and 21·4 girls.

In spite of the much greater percentage wearing glasses at the age of 15, the number of pupils passing the vision test remained approximately the same, viz., 70·8 per cent. among boys and 68·8 per cent. among girls.

Care of eyesight in secondary schools.

In September, 1926, sight-saving education for myopic pupils was begun at Clapton and Peckham (now Honor Oak) county secondary schools for girls and at the Raine's foundation school for boys.

Myopic pupils in the secondary schools suffer from a less degree of myopia than the average pupil in the elementary myopic schools. The myopic pupils are not taught as a separate class in the secondary schools, the only exception being that physical education at Clapton is taken by the myopes as a group.

The pupils have an age range of from about 11 to 18 years, and the number who have similar scholastic attainments is very small. The instruction of these myopes as a class would generally involve the subdivision of the class into a large number of sections ; so far no solution has been found to the problem of educating myopes sectionally in the subjects of the curriculum of the secondary school. In the three schools concerned it is usual for forms to be organised so that quite a number of forms contain a small group of myopes, often only 2 or 3. Instruction in the main is given by the staff generally in their capacity as specialist teachers and not by one particular teacher, though in each school one member of the staff takes a special interest in the welfare of the myopes.

By instruction of the Higher Education Sub-Committee a full investigation was made in the spring of 1933 into the working of these arrangements. This was carried out on the medical side by Dr. E. M. McVail, who arrived at the following conclusions :—

Success in safeguarding the eyesight of myopes under instruction depends largely upon the effectiveness of the co-operation established between the ophthalmologist and the heads and staffs of schools where myopes are educated. The fullest possible measure of co-operation is not easily achieved. On the medical side there may be grave anxiety and concern for the condition of the pupils' eyes. On the educational side, given the utmost goodwill, there are limits to action that is desirable if the personality and character of pupils are to be developed, quite apart from questions as to what is executively practicable. Examination success is in a different category : in the case of myopes this must definitely be regarded as of secondary importance. There can be no satisfaction in examination success if eyes are damaged in gaining it.

The scheme for sight saving, with modifications in individual cases as advised by the ophthalmologist, should be carefully observed. Where the general organisation of the school permits, myopes should have preparation periods in school time, preferably at least one every

day, during which they may be read to by teachers or other pupils or given other approved occupations. Myopes who are not allowed to read and who are not systematically read to by others are seriously handicapped in comparison with other pupils. If suitable books with large and clear type were available, the special preparation periods might for pupils with lesser degrees of myopia be limited, but it is understood that in present circumstances the cost of such books is prohibitive. Appropriate subject matter types on a Bulletin machine could be studied by most of the myopes in preparation periods or during lessons.

The practice of allowing pupils to take text-books home in order that members of their families may read to them offers strong temptation to pupils to transgress the rule about reading at home, and cannot be followed without serious risk except in cases where family co-operation has been enlisted and can be depended upon. School books, therefore, should not be taken home by myopic pupils except on the specific direction of the head acting in consultation with the ophthalmologist.

The word "homework" in the sight-saving instructions should be taken to mean any work or study at home involving any use of the eyes.

In the case of some myopes the question may arise as to whether a secondary school course is, for medical reasons, the best available course. It might, for example, be desirable, in certain cases to consider the practicability of a transfer at a suitable age to a trade school. Machinery exists whereby such a transfer can be made where the myopic pupil holds a special place, but the difficulties of finding a suitable trade and of persuading the parents to agree to the transfer are considerable.

After-school occupations should continue to receive much attention. Although the degree of myopia tends to remain almost stationary after 20 years of age, complications with serious visual defects frequently ensue in later years. Close work and that involving strenuous exercise and the lifting of weights are to be avoided, and it is only in a few exceptional cases of non-progressive myopia without fundus changes that medical sanction has been given for occupations such as teaching. The higher education of myopes should be regarded as an opportunity to guide pupils of intelligence in their careers and thus to prevent blindness.

Broadly speaking, it would appear that from the medical and the educational points of view the experiment of providing a special type of secondary education for myopic pupils is justifying itself and should be continued, with certain modifications suggested above, and that the possibility of extending the provision to one or two additional schools should be explored.

Defects.

The children in secondary schools are, as far as scholarship cases are concerned, selected children, and no child is admitted who is deemed incapable by reason of ill-health of benefiting from the education provided. Cases of heart disease, defects of nose and throat, and ear disease are rarer than in elementary schools, where there is no selection beyond that of drafting to special schools. Yet in the secondary schools there are more cases of postural defects such as curvature of the spine, again showing the effect of more intensive study, and in these cases also the incidence is higher at the age of 15 than at the age of 12.

Nutrition in a secondary school for boys.

Dr. Simpson supplemented his inquiries into nutrition in elementary schools, by an examination of boys in a selected secondary school.

The school is housed in a modern building, with large grounds, in a newly developed residential district on the borders of London.

There are 435 children on the roll at present, most of whose parents are reported to be "in comfortable circumstances." About 60 per cent. of them have been in elementary schools, either in London or elsewhere, and a third of these have scholarships. Rather more than half of the children live locally, and 25 per cent. outside the county of London.

A hundred boys have been examined—that is to say, about a quarter of the school. These boys have not been selected in any particular way—they are merely the next 100 due for inspection. They had been seen by the school doctor in 1932, so that it is possible to compare their present condition with that of a year ago.

The children happen to be from 8 to 14 years old, and so are within the age limits of elementary schools. More than half of them are of the ages 12 and 13, as the percentages in the following table show:—

Age (in years).	8	9	10	11	12	13	14	15	16	17	18
Children in this series ...	2	11	6	8	36	29	8	—	—	—	—
„ „ whole school ...	9		7	13	20	21	13	10	4	2	1

The type of school at which they received their earlier education gives a rough idea of their home circumstances. The number who have previously been to Council schools is 57 (about the same proportion as in the whole school) and 25 have scholarships.

Elementary school children.

London—with scholarships	...	...	...	23
without „	...	...	...	24
Elsewhere—with scholarships	...	...	...	1
without „	...	...	...	10

The physique of the majority of these children is good. They are healthy and well developed, and many are over the average height and weight for their age. It is noticeable, however, that slight postural defects are not uncommon among them (8 per cent.). Dental decay is comparatively rare (11 per cent.) and other defects are conspicuously absent.

Their nutritional classification is shown in the following table, in which the usual standards have been adopted (1 = excellent; 2 = satisfactory; 3 = sub-normal, but not greatly so; 4 = grossly ill-nourished):—

Classification.	Total.	Group 1.		Group 2.		Group 3.	
		Number.	Percentage.	Number.	Percentage.	Number.	Percentage.
Boys from elementary schools	57	23	40	31	55	3	5
Others	43	22	51	19	44	2	5
Whole series	100	45	45	50	50	5	5

This table shows that the general standard is high, and that there is no material difference between those who have been to elementary schools and those who have not. The proportion classed 1 (excellent) is remarkable. Only 5 boys are subnormal and none of these is severely affected. There was no boy classified in group 4.

These subnormal children may be considered in greater detail. Of these boys, one is 10 years, one 12 years and three are 13 years of age. The fact that four out of five of them are 12–13 years old suggests that puberty may be a determining factor, but as 65 per cent. of the boys seen are of these ages, the point cannot be pressed.

Three of the children have been to elementary schools, and two have not. Three have a previous record of malnutrition, of whom two have been to private schools and their families' circumstances are described as "good," and one has been to an elementary school and has a "free place." This last boy comes from a very poor home, and is having free dinners and a clothing grant. His father is a clerk who has been out of work for three years. Both of the other two subnormal children have "satisfactory" homes.

It is interesting to compare the present state of this group of children with their condition last year, as recorded by another observer.

Year.	Group 1.	Group 2.	Group 3.
1932	48	43	9
1933	45	50	5

The high standard of fitness of the majority is evidently no new thing, for there is a close agreement between the figures in group 1 (nutrition excellent). The number of boys judged to be poorly nourished has fallen since 1932. Apart from the possibility of a difference of opinion between the two examiners, the alteration is accounted for in the following way. Six of the boys noted in 1932 have improved, and are now normal. The other three are still poorly nourished, and to them have now been added two boys whose condition seems to have deteriorated.

Further comparisons may be made:—

(1) As a control to this inquiry, the records of the last 100 boys examined this year in another secondary school have been reviewed, and it has been found that 4 per cent. of them are ill nourished. The proportion in the present series (5 per cent.) is therefore not exceptionally low.

(2) Comparison between such a small group of children and elementary and secondary schools in general is not strictly justifiable, but serves to give a rough idea of the position.

Boys examined at	Year.	Ages.	Percentage in		
			Group 1.	Group 2.	Group 3.
This inquiry	1933	8 to 14 years	45·0	50·0	5·0
Elementary schools ...	1932	„ „	19·1	75·8	5·1
Secondary schools	1932	All ages	14·9	77·9	7·2
„ „	1931	„ „	17·2	78·1	4·7

The standard of nutrition, as indicated by column 1 (excellent) is apparently decidedly higher in the group of children under consideration than in boys of the same ages at elementary schools, and higher than that of the general run of secondary school boys. The incidence of malnutrition however, though about the same as in the elementary school group and in secondary schools in 1931, is 2·1 per cent. lower than the rate found last year in the latter.

The following conclusions may be drawn from this inquiry :—

(1) The nutrition of the boys in this school is good : 45 of the 100 inspected are classed as excellent, and only 5 are subnormal.

(2) No material difference in nutrition has been found between the boys who have been to elementary schools and those who have not.

(3) The standard in this school seems to be higher than that of boys in most elementary and secondary schools.

(4) The incidence of malnutrition is about the same here (5 per cent.) as in elementary school boys of the same age. It is lower than the rate in secondary school boys in 1932, and about the same as that reported in 1931.

Re-inspection.

The re-inspection of 2,710 pupils in higher education institutions was carried out ; 1,630 defects had been remedied, 1,061 had improved, and in the remainder (mostly dental cases) there was no improvement.

The following-up of defects discovered at secondary schools is left to the head masters and mistresses. When the parent is not present, a letter recommending treatment is sent, generally in the name of the head master or mistress. The parents normally respond readily.

Scholarship children attending secondary and trade schools are given the same facilities for medical treatment under the Council's arrangements as children in elementary schools.

For fee-paying pupils at secondary schools who have been inspected by the Council's medical officers or doctors appointed by the governors, arrangements are made when necessary for medical treatment to be received under the Council's scheme provided that (i) the parents cannot afford to make private arrangements and (ii) payment is made therefor.

Training colleges.

Of the 1,007 students examined in training colleges, none was found to be suffering from extensive dental caries ; 87·9 per cent. of the men and 78·4 of the women passed the vision test, but 32·4 per cent. of the men and 28·8 of the women were wearing glasses.

The teaching of hygiene.

The new edition of the Board of Education's suggestions has been distributed to all the schools.

The school medical staff is not formally identified with the work of teaching hygiene. In all elementary schools, however, formal teaching of hygiene takes a place in the syllabus.

A considerable amount of informal help is given by the doctors and nurses. Applications for addresses by the medical staff to parents and children are not infrequent and are always met. No time is, however, allowed for this, and if applications increased to any extent it would be impossible to accede to the requests without additional staff.

The work of the school nursing service is very largely devoted to the practical inculcation of good habits of personal hygiene. As eighty per cent. of parents attend the medical inspection of their children at some stage during school life, the school doctors exercise a potent influence through their individual advice, and though the effect of this is incalculable it is probable that there is no greater influence for health at work in the population generally.

At dental inspection a little homily is generally given by the dental inspector to the parents as a group on the importance of dental care.

The scheme organised by the education officer for dental demonstrations, in the schools, by officers of the dental board is now a permanent feature of hygiene teaching in the London schools, and reports are received which show that these demonstrations awake great interest and are of much value. In some of the boroughs the medical officer of health takes great interest in the work of education in health. " Health week " is commonly associated with a mass attack, in which the school children are catered for by special addresses and demonstrations.

In Bermondsey the assistant medical officers of the local authority conduct lectures and demonstrations in the schools.

Dr. Hutt, the medical officer of health of Holborn, reports that 1,300 senior children in the schools of that borough wrote essays on health lessons for which prizes were given. Dr. Hutt says, " We are much indebted to the teachers for their kind and invaluable co-operation. It is they who establish in the minds of the children a health conscience." A competition was also organised for the design of health posters. Ninety designs were received from four schools and three prizes were awarded.

The treatment centres are capable of becoming in truth health centres, and parents visiting them learn much in regard to the general care of their children.

The Downham treatment centre proclaims itself as a health centre, and sets an example in this respect by organising public lectures including cinematograph displays. The titles of the lectures arranged include " The Health of the School Child," " The Care of the Teeth," and " The Difficult and Backward Child."

Red Cross " links " have been established in many schools particularly in the south-western division. These are intimately associated with the work of the school nurses, and give great assistance in creating enthusiasm and a " public opinion " amongst the school children in regard to cleanliness and hygienic living. There is a demand for health instruction on the part of the young population over school age. In the evening schools 178 classes with 5,756 pupils were held. These classes are conducted by selected medical practitioners and comprise as subjects infant care, health, home nursing and first aid.

There are also lectures provided by the Education Committee at 26 day schools for mothers, which were attended by 986 persons.

Advanced lectures are also given to teachers in the evenings, and the assistant medical officers who medically inspect the students in training colleges assist with the teaching of hygiene which is a compulsory subject.

Special inquiries and reports.

Special inquiries and reports are included under their appropriate headings. Attention may be drawn to the inquiries into the nutritional state of the children by Dr. R. H. Simpson (pp. 14 and 90); to the special report on orthoptic treatment of squint by Dr. Thornett (p. 34); the report by Dr. Slot (p. 76); and the work of Dr. E. M. McVail on the care of myopic children in secondary schools (p. 89).

Wage-earning employment of school children.

In the year 1933, 2,863 applications (2,828 boys and 35 girls) were dealt with under the by-laws for medical certificates in connection with the employment of school children out of school hours.

The nature of the work for which certificates were granted is shown below; the first numbers are in respect of boys, the figures for girls being given in brackets: delivery of milk, 285; delivery of newspapers, 1,561 (18); carrying or delivery of goods or parcels, 565 (6); in or in connection with a shop, 252 (4); in a coal yard, 5; industrial work at home, 4 (1); house work away from home, 19 (1); as a messenger, 46 (1); not stated, 3 (1).

In 169 cases the certificates were granted subject to medical treatment being obtained, and in 60 additional cases other conditions were imposed. Certificates on medical or other grounds were refused to 88 boys and 3 girls for the following reasons: rheumatism, 2; dental condition, 8; defective vision, 7; bad heart condition, 7; otorrhœa, 2; poor general condition, 13; epilepsy, 1; non-medical reasons such as " withdrawn," illegal hours, under or over age, etc., 53. Two children were rejected under each of two headings.

School children employed in entertainments.

The number of children examined under the regulations governing the employment of children in entertainments was 540 (67 boys, 473 girls). Three children, girls, were rejected on medical grounds—one poor physique, one flat feet, and one tuberculous glands. One hundred and fourteen children were referred for treatment in the first instance and given certificates of fitness at a subsequent medical examination. The conditions requiring treatment were dental decay 72, visual defect 21,

throat condition 9, skin affection 4, personal hygiene 3, anæmia 2, ear affection 2, and thyroid affection 1.

Examination of employees in the education service and scholars.

In the year 7,864 entrants to the permanent education service, and candidates for teaching awards and for scholarships, presented themselves for examination. The following table indicates the numbers submitted for each grade and the results of the examinations :—

Status.	Number examined.		Number fit.		Number rejected.		Number who withdrew after being referred for remediable defects or were not due for re-examination until 1934.	
	Male	Female	Male	Female	Male	Female	Male	Female
Permanent service ...	397	506	381	490	10	13	6	3
Teaching awards ...	132	516	129	489	—	12	3	15
Scholarships—								
Myopes	5	10	5	10	—	—	—	—
Others	3,244	3,095	3,133	3,033	18	4	93	58
	3,778	4,127	3,648	4,022	28	29	102	76
Total	*7,905		7,670		†57		178	

* Including 10 permanent service cases (9 male, 1 female), 11 teaching awards (female) and 20 scholarships (14 male, 6 female) referred from 1932.

† The causes of rejection were mainly defects of vision, unsatisfactory general health and morbid conditions of the heart.

In addition to the above, 137 examinations were made of scholars (59 male, 78 female) with a view to determining their fitness to continue to hold awards, and of these 17 (9 male, 8 female) were found to be unfit.

Re-examinations totalling 1,954, were made of entrants, scholars, etc., who were referred at the first exmaination for treatment for one or more remediable defects.

The total number of examinations was 9,996.

Cases specially referred.

There were also referred to the public health department 3,510 special cases in which medical advice was required. This figure includes 2,920 teachers (544 men, 2,376 women) and 590 schoolkeepers, cleaners, etc. (127 men, 463 women).

In regard to recommendations governing sick leave to teachers, 1,910 or 72 per cent. of the teachers concerned were over 40 years of age ; this shows an increase of 1·8 per cent. on that of the previous year.

In connection with these cases 29 home visits were paid during the year.

Teachers of physical education.

During the year 242 applicants for admission to the Council's course of physical education were examined. Of these 18 were deemed to be either temporarily or permanently unfit to undergo the training on the following grounds : poor general condition, 8 ; varicose veins, 3 ; rheumatism, 2 ; myopia, 4 ; recent injury, 1.

STATISTICAL TABLES.

TABLE I.—*Medical Inspection*, 1933.

(*a*) *Routine Inspections.*

Group.	Boys.	Girls.	Total.
Entrants	28,086	27,575	55,661
Age 8	25,075	24,689	49,764
Age 12	28,530	28,039	56,569
Leavers	28,788	27,872	56,660
Total elementary schools	110,479	108,175	218,654
„ special schools ...	868	685	1,553

(b) Other Inspections.

Special inspections ...	42,956	42,404	85,360
Infectious disease enquiries	—	—	71,600
Re-inspections	—	—	165,048

TABLE II.

(a) Defects found at medical inspections in 1932. Elementary and special schools.

Disease or defect.	Routine inspections—Defects.				Special inspections—Defects.	
	Requiring treatment.		Requiring observation.			
	Elementary schools.	Special schools.	Elementary schools.	Special schools.	Requiring treatment.	Requiring observation.
Malnutrition	1,311	9	781	—	599	195
Skin—Ringworm, head	3	—	—	—	18	7
„ „ body	30	—	—	—	18	2
Scabies	127	2	2	—	1,896	8
Impetigo	143	1	2	—	371	12
Other disease (non-tubercular)	941	8	82	1	763	90
Eye—Blepharitis	701	5	71	—	235	26
Conjunctivitis	199	—	15	—	199	37
Keratitis	3	—	1	—	12	1
Corneal opacities	8	—	6	—	15	7
Defective vision, excluding squint	16,224	127	6,481	68	3,337	402
Squint	1,117	7	338	—	475	33
Other conditions	189	1	44	—	212	41
Ear—Defective hearing	243	5	105	1	183	46
Otitis media	1,087	15	288	1	570	103
Other ear disease or defect ...	514	4	88	1	224	45
Nose and throat—						
Chronic tonsillitis	5,422	19	5,981	16	1,294	369
Adenoids	573	—	307	1	209	43
Chronic tonsillitis and adenoids	1,603	4	592	1	515	46
Other conditions	793	6	256	—	562	124
Enlarged cervical glands	265	1	922	—	164	211
Defective speech	105	1	146	1	143	53
Teeth—Dental disease or defect ...	62,005	323	1,256	3	3,725	96
Heart and circulation, heart disease—						
Organic	39	2	92	1	5	2
Functional	49	—	204	2	15	21
Not stated	238	—	2,462	21	343	671
Anæmia	658	4	543	—	405	192
Lungs—Bronchitis	888	5	866	2	191	71
Other non-tubercular ...	239	3	519	3	176	185
Tuberculosis—						
Pulmonary definite	1	—	9	—	3	7
„ suspected ...	13	—	55	—	10	84
Glands	7	—	7	—	8	8
Spine	—	—	—	—	—	1
Hip	1	—	5	—	3	2
Bones and joints	—	—	1	—	5	—
Skin	—	—	1	—	1	—
Other forms	4	—	5	—	—	1
Nervous—Epilepsy	32	—	23	—	68	40
Chorea	67	1	57	—	215	141
Other conditions	183	1	286	1	148	127
Deformities—						
Rickets	59	—	36	—	17	8
Spinal curvature	540	2	196	1	76	14
Other	750	8	457	2	181	65
Other conditions	2,810	15	1,223	4	3,512	1,212

(b) Children found at routine medical inspection to require treatment (excluding uncleanliness and dental disease).

Age group.	Inspected.	Found to require treatment.	Percentage requiring treatment.
Entrants	55,661	8,336	15·0
Age 8	49,764	8,489	17·1
Age 12	56,569	10,181	18·0
Leavers (age 13¾)	56,660	8,696	15·4
Total, elementary schools	218,654	35,702	16·3
„ special schools...	1,553	*232	14·9

* Not including the special defects for which the children are in the special schools.

TABLE III.

(a) Exceptional children in London in 1933.

Classification.	At certified special schools.	At public elementary schools.	At other institutions*	At no school or institution	Total.
Blind children	146	—	5	—	151
Partially blind children	835	12	6	—	853
Deaf children	547	—	6	1†	554
Partially deaf children	181	3	20	2‡	206
Mentally defective children—					
Feeble-minded children	4,192	11§	9	5	4,217
Epileptic children—					
Children suffering from severe epilepsy	128	—	20	27¶	175
Physically defective children—					
Tuberculous children—					
Pulmonary	366	—	21	—	387
Non-pulmonary...	801	—	12	—	813
Delicate children	2,854	6,208	4	—	9,066
Crippled children	2,129††	—	22	—	2,151
Children with heart disease ...	2,140	—	45	—	2,185

* Undergoing treatment in general hospitals, etc.
† Receiving instruction at home.
‡ Under enforceable age (5 years).
§ At time of report were awaiting admission to M.D. schools.
¶ Awaiting admission to certified schools.
†† Includes 36 children at Northern hospital (encephalitis lethargica).

(b) Return of children suffering from more than one defect, 1933.

Defect.	Type of School.									At other institutions (Gen. hosp., etc.)	At no Schl.	Total
	Day M.D.	Residential M.D.	Day Blind	Residential Blind	Day Deaf	Residential Deaf	Epileptic colony	Day P.D.	Certified hospital Schls.			
M.D. and deaf	4	–	–	–	–	1	–	–	–	–	–	5
M.D. and crippled	60	1	–	–	–	–	–	11	10	3	–	85
M.D. and heart	39	–	–	–	–	–	–	3	1	–	–	43
M.D. and epileptic	28	–	–	–	–	–	30	–	–	1	–	59
M.D. and T.B....	–	–	–	–	–	–	–	–	3	–	–	3
M.D., deaf and blind ...	1	–	–	–	–	–	–	–	–	–	–	1
M.D., crippled and deaf ...	1	–	–	–	–	–	–	–	–	–	–	1
Blind and heart	–	–	1	–	–	–	–	–	–	–	–	1
Blind and epileptic	–	–	1	1	–	–	–	–	–	–	–	2
Blind and deaf	–	–	–	–	–	1	–	–	–	–	–	1
Blind and M.D.	–	–	1	–	–	–	–	–	–	–	–	1
Deaf and crippled	–	–	–	–	–	4	–	3	1	–	–	8
Deaf and heart	–	–	–	–	–	2	–	–	–	–	–	2
Epileptic and crippled ...	–	–	–	–	–	–	–	5	–	–	–	5
Epileptic and heart	–	–	–	–	–	–	4	–	1	1	–	6
Epileptic, M.D. and crippled...	1	–	–	–	–	–	–	–	–	–	–	1
Heart and crippled	–	–	–	–	–	–	–	27	–	–	–	27
	134	1	3	1	–	8	34	49	16	5	–	251

TABLE IV.

Treatment table.

(*a*) GROUP I.—*Minor ailments, excluding uncleanliness, for which see Group V.*

Disease or defect.	Defects treated or under treatment.		
	Under Council's scheme.	Otherwise.	Total.
Skin—			
Scabies	5,311	—	5,311
Impetigo	178*	242	420†
Ring-worm, head			
,, body			
Other skin disease			
Eye disease (external) and other (but excluding cases falling in Group II)	110,600	1,080	111,680
Ear disease (cases in which operative treatment, *e.g.*, mastoid operations, etc., is given, are excluded)			
Miscellaneous (minor injuries, bruises, sores, chilblains, etc.)	116,089	1,322	117,411

* 160 by X-ray. † 376 by X-ray.

(*b*) GROUP II.—*Defective vision and squint (excluding eye defects treated as minor ailments, for which see Group I).*

Disease or defect.	Defects dealt with.		
	Under Council's scheme.	Otherwise.	Total.
Errors of refraction (including squint, but excluding operations for squint)	38,434	1,827	42,261
Other defect or disease of the eyes (excluding those in Group I)	2,000 (estimated)	—	

Children for whom glasses were prescribed—under the Council's scheme, 29,382; otherwise 1,397 (estimated).

Children who obtained or received glasses—under the Council's scheme, 27,292 = 92·9 per cent.; otherwise 1,013.

(*c*) GROUP III.—*Treatment of defects of the throat and nose. Number of defects.*

Defect.	Received operative treatment.		Total.	Received other forms of treatment.	Total number treated.
	Under Council's scheme.	Private practitioner or hospital.			
Tonsils ...	798	728	1,526	4,021	15,457
Adenoids ...	428	101	529		
Tonsils and adenoids ...	8,782	326	9,108		
Other	116	157	273		
Total ...	10,124	1,312	11,436		

GROUP IV.—*Dental defects.*

1.	Number of children who were :—		
	(*a*) Inspected by the dentist—Age groups 5 years and under ...	14,044	
	6 „ ...	30,067	
	7 „ ...	35,075	
	8 „ ...	16,103	
	9 „ ...	35,867	
	10 „ ...	43,020	
	11 „ ...	36,269	
	12 „ ...	16,087	
	13 „ ...	34,058	
	14 „ and over ...	14,623	
		275,213	
	(*b*) Found to require treatment...	175,559	
	(*c*) Actually treated	133,835	
2.	Half days devoted to inspection	2,468	21,181
	„ „ „ treatment	18,713	
3.	Attendances by children for treatment	229,509	
4.	Fillings—permanent teeth	111,872	134,678
	„ temporary teeth	22,806	
5.	Extractions—permanent teeth	58,373	332,146
	„ temporary teeth	273,773	
6.	Administration of general anæsthetics for extractions	69,683	
7.	Other operations—permanent teeth „ „ temporary teeth	26,649	

GROUP V.—*Uncleanliness and verminous conditions.*

(*a*)	Average number of visits per school made by school nurse during the year ...	6
(*b*)	Examinations of children in the schools by school nurses	1,803,547
(*c*)	Number of verminous children noted	91,629
(*d*)	Children cleansed under Council's arrangements	73,438
(*e*)	Cases in which legal proceedings were taken under the Education Act, 1921 (section 87)	304

TABLE V.

Medical inspection.—Number of children examined, 1923–1933.

Year.	Routine examinations.	Special examinations.	Re-inspections.	Examinations at special enquiries into outbreaks of infectious disease.	Special ear inspection centre attendances.	Rheumatism supervisory centre attendances.
1923 ...	198,722	106,806	146,260	—	3,357	—
1924 ...	194,371	63,918	154,502	—	3,642	—
1925 ...	240,365	76,357	159,388	—	7,996	—
1926 ...	248,820	81,575	191,182	87,009	11,065	—
1927 ...	256,123	82,394	193,260	95,147	12,091	—
1928 ...	268,592	88,832	187,480	50,439	14,921	1,409
1929 ...	248,036	91,012	185,989	39,711	14,588	5,125
1930 ...	218,458	86,162	186,615	44,609	15,423	6,670
1931 ...	220,600	90,248	169,029	25,596	17,252	9,767
1932 ...	221,895	95,855	163,491	58,870	18,154	12,833
1933 ...	218,654	85,360	165,048	71,600	18,023	14,880

TABLE VI.

Medical treatment.—Number of cases treated under the Council's scheme and by other agencies, 1923–1933.

Year.	Minor ailments.†		Vision.		Nose and throat.		Dental.	
	Under the Council's scheme.	Otherwise.	Under the Council's scheme.	Otherwise.	Under the Council's scheme.	Otherwise.	Under the Council's scheme.	Otherwise.*
1923 ...	82,475	2,235	31,986	1,573	11,936	1,162	95,332	4,722
1924 ...	83,751	1,931	32,747	1,189	12,980	1,193	99,045	4,285
1925 ...	91,691	2,351	36,356	1,520	15,066	1,633	112,964	4,472
1926 ...	92,683	1,961	37,985	1,687	15,168	1,615	113,932	4,321
1927 ...	103,019	1,796	40,293	1,593	18,176	1,797	124,992	4,689
1928 ...	101,254	1,772	40,984	1,837	20,162	2,336	129,255	4,758
1929 ...	101,666	1,615	41,620	1,905	19,903	2,282	129,952	4,473
1930 ...	105,118	1,435	43,579	1,961	19,760	1,904	138,280	5,849
1931 ...	106,072	1,492	44,686	2,082	20,703	1,935	139,723	5,282
1932 ...	105,624	2,726	44,172	1,811	17,364	1,793	134,769	5,195
1933 ...	§116,089	1,322	40,434	1,827	14,145	1,312	133,835	4,806

* It is not possible to give complete figures, but those given are the result of following up of medical inspections. Other children receive dental treatment outside the Council's scheme as a result of dental inspection.

† Includes skin and head ringworm cases. § Includes 11,876 "nurses' cases."

TABLE VII.

Medical inspection of students in higher education institutions, 1933.

Classification.	Council secondary schools.		Other secondary schools.		Council and other junior tech. schools.		Training colleges.		Total.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Male.	Female	Male.	Female
Number of institutions	12	16	14	10	16	14	1	4	43	44
I. Routine detailed examination at—										
(1) age 12 ...	713	912	824	527	215	6	—	—	1,752	1,445
(2) age 15 ...	455	734	663	414	635	711	—	—	1,753	1,859
II. Examination (not necessarily detailed) at other ages (*i.e.*, specials) ...	1,345	1,432	1,309	594	514	619	99	908	3,267	3,553
III. Reviewals ...	704	1,709	631	332	304	278	—	2	1,639	2,321
IV. Re-inspections ...	370	940	625	256	266	175	—	78	1,261	1,449

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