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ANNUAL REPORT

TO THE

CITY OF BIRMINGHAM EDUCATION COMMITTEE

OF THE

SCHOOL MEDICAL OFFICER

GEORGE A. AUDEN, M.A., M.D. (Cantab.), Ph.D. (Birm.)
F.R.C.P. (Lond.), D.P.H. (Camb.).

INCLUDING THE REPORT ON THE
SPECIAL SCHOOLS

BY

JAMES M. SMELLIE, M.D., M.R.C.P.

FOR THE

YEAR ENDED 31st DECEMBER, 1931

In accordance with Circulars 576 and 596 of the Board of Education.

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ASSISTANT SCHOOL MEDICAL OFFICERS:

Elizabeth J. Moffett, M.D., B.Sc. (Resigned 9/11/31).
Bethia S. Alexander, M.B., Ch.B., D.P.H.
Jessie J. Stooke, L.R.C.P. & S., Edin., D.P.H.
Marion M. Burt, M.B., B.S., D.P.H. (Resigned 30/9/31).
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SCHOOL DENTAL SURGEONS:

*J. Jessop, L.D.S.
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J. M. Dawson, L.D.S.
*W. A. Stockwin, L.D.S.
H. A. Cohen, L.D.S.

OPHTHALMIC SURGEONS:

*H. W. Archer-Hall, M.R.C.S., D.O.
*A. W. Aldridge, M.B., B.S.

AURAL SURGEONS:

*F. B. Gilhespy, M.R.C.S.
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*Naughton Dunn, M.A., M.B., Ch.B.

ANAESTHETISTS:

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*C. Bracey Dale, M.R.C.S., Tonsil and Adenoid Clinic.

*Part time Officers.

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For the Year ended 31st December, 1931.

ELEMENTARY, SECONDARY & NURSERY SCHOOLS.

INTRODUCTION.

The past year has not brought any developments of special importance. The sudden financial crisis in August has necessarily delayed certain advances which were foreshadowed in the report for 1930, i.e., the transference of Greet Clinic to new premises in Sparkhill, and the building of a new clinic in Slade Road, Erdington, to cope with the increasing needs of the new housing districts in the Kingstanding and Erdington areas. The new Clinic at Bordesley Green, to replace that formerly held in the premises of the Medical Mission, Floodgate Street, which was described in the last Report, was formally opened on the 29th January, 1931, by Sir Farquhar Buzzard, Regius Professor of Physic in the University of Oxford.

Changes in the Medical Staff were caused by the resignation of Dr. E. J. Moffett, after 18 years, and Dr. M. Burt, after 14 years' service under the Education Committee. Dr. D. Payton and Dr. K. Dickinson were appointed in their place, but did not begin their duties until 1932.

A highly satisfactory feature of the year has been the increasing number of parents who have availed themselves of the opportunities to make their children immune to the danger of Diphtheria which are now afforded (page 27). The saving of child life which has thus been accomplished may be gauged by the reduction in the annual number of deaths of children of school age from this disease.

The total number of routine, special and re-inspections, and Secondary School inspections was 129,200, while the Dental Officers inspected 92,150 individual children. The percentage of parents availing themselves of the facilities of the School Dental Clinics for their children has shewn a very satisfactory increase.

The Medical Department has always worked in close relationship with the voluntary organisations which aim at the improvement of the conditions of child-life. This co-operation has continued.

Chief amongst these must be mentioned the Children's Charities Fund of the National Union of Teachers, which provides medical and convalescent treatment for school children in poor circumstances who are recommended as needing it by the School Medical Officers. This treatment is supplied through hospital and dispensary notes, and also

by the provision of instruments at the Royal Cripples' Hospital. The Fund, too, supports societies which have as their aim the provision of boots and clothing for destitute children. Also, for some years, outfits of clothing have been purchased for boys and girls at the Camp Schools—including this year the camp for Special Schools. The cost of the above services during the past year has amounted to £1,400.

The Residential School for girls suffering from Rheumatism and Chorea, which was opened in September, 1930, at Haseley Hall, near Warwick, by the Birmingham Society for the Care of Invalid Children, is managed with the closest co-operation of the Medical Staff of the Education Committee, and has proved of the utmost value to the children who have been admitted. There is, at the present time, accommodation for 39 girls.

The Birmingham Children's Country Holiday Society has continued to send into the country children in need of a holiday or of convalescent treatment. 1,462 children were sent into the country on the recommendations of the School Medical Department and Teachers, and 269 were sent for convalescence to the Hadley Home, Conway.

The Children's Hospital naturally plays a leading part in dealing with the sick children of the City and neighbourhood, and each year shews a larger number of children who receive the benefit of the resources of that Institution. How great this service is may be gathered from the following figures for the past year, kindly supplied by Mr. Shrimpton, the House Governor.

Children admitted to Wards	2,896	To Day Wards	4,042
Out-patients	16,523	Major Operations	1,836
Ear and Throat Dept. ...	2,201	Ophthalmic Dept.	508
Dental Dept.	1,223	Ultra Violet Treatment ...	7,155

These figures are instructive testimony of the value of the work of the Hospital which, side by side with the Municipal Health activities, is working towards a common end, i.e., the maintenance of the health of the rising generation.

With the changing relationship between the Voluntary Hospitals and the community, which is arising from new conceptions of the interest of the community in the health of each individual member, and the rapid progress of scientific medicine, with the increased cost which this entails, it is becoming more and more clear that there must come about an increasingly close association between the voluntary hospitals and the publicly supported services in preventive medicine. This would apply with especial force to the co-operation of the school medical service and the Children's Hospital which is able to supply a consultative service to the mutual benefit of both. That a scheme on these lines is not impracticable may be gathered from that which is already in operation in the City of Toronto, where a Health Visitor—School Nurse, attends the Out-patient Department of the Children's Hospital and acts as a liaison officer between the hospital, the health department, the school and the home which she visits. She sees that the treatment advised at the hospital is carried out, and arranges for regular attendance as required. She thus brings each patient in touch with all the curative and social agencies which are available. The hospital for sick children at Toronto is the consultative centre for all the work dealing with the children in the City, and both physicians and nurses are, in this respect, in the service of, and paid by, the City.

It is clear that a scheme of co-operation of this kind secures a uniformity of effort and a definite direction of action towards a common end which is highly desirable, and removes those haphazard and uncorrelated methods which are so wasteful of time, money and energy.

For example, the incidence of rheumatism and the allied condition, chorea, is to-day one of the most pressing problems in the whole range of preventive medicine. A careful census of the school population in London and other areas has shewn that 2 per cent. of the Elementary school population shew evidence of rheumatic infection, and though no accurate figures can be given for the City of Birmingham, there are no grounds for believing that this is an over-estimate. Furthermore, the Registrar General's returns of the principal causes of death in 1930 shew that diseases of the heart accounted for 90,103 deaths, a proportion of 198 per 1,000 deaths from all causes. It is estimated that one-third of all cases of heart disease are rheumatic in origin. The main incidence of the infection appears to be between the ages of 8 to 12, and it is, therefore, to those engaged in the School Medical Service that the earliest signs and symptoms of the disease are revealed. But ascertainment of the cases in the early stages when there is hope that its disease may be arrested and its sequelae prevented is of no avail if the opportunities for carrying out the treatment necessary, under skilled supervision, are lacking. Although Rheumatic Clinics are held at the School Clinics for the continued supervision of known cases and records of their progress are kept, many children are seen who have attended one or other of the Hospitals. A closer collaboration by the formation of a Rheumatic Supervisory Centre, most suitably in association with the Children's Hospital, would secure opportunities for consultative advice in the cases of difficulty and would allow the ambulatory cases, and those discharged from the Hospitals to their homes, to be wached with greater certainty than is possible at present.

It is not possible to ascertain the number of children who received treatment at the various voluntary Hospitals, but Dr. F. Ellis, Medical Superintendent at Dudley Road Hospital, reports that 3,810 children between the ages of 3 and 16 were admitted for operations, accidents, or the treatment of acute conditions to the Dudley Road and Selly Oak Hospitals.

The main features of the treatment accomplished by the School Medical Service may be gauged from the following summary :—

Tonsil and Adenoid Operations	1,367
Minor Ailments Treated	17,008
Children treated for Dental Defects	36,322
Mastoid Operations at Selly Oak Hospital	15
" Short Stay " Operations at Selly Oak Hospital	66
Children treated by Ionization (for Otorrhoea)	68
Refractions for Eye Defects	3,533
X-Ray Treatment for Ringworm	100
Ultra Violet Ray Treatment	874
Examinations under Bye-Laws for Employment of Children	1,715

LONG-DATE ABSENCES FROM SCHOOL.

The register of children absent from school on medical grounds for more than three months compiled during December, shews a considerable reduction compared with the three previous years in which this investigation has been carried out. How far this reduction is significant rather than accidental is difficult to determine, but the figures give ground for the belief that the various types of special school, the

increasingly close co-operation between the School Attendance Department and the School Medical Service, with the supervision which results from this co-operation, is reducing the educational loss entailed by illness and disease. Rheumatism, Chorea, and Heart Disease continue to be the chief cause of prolonged absence.

The causes of absence from school for periods of more than three months in December, 1931, were as follow:—

	Under Treatment by			
Disease or Defect.	*Private Practitioners.*	*Hospitals.*	*Total.*	1930.
Pulmonary Tuberculosis ...	—	2	2	4
Other Chest Conditions ...	11	12	23	24
Asthma	2	6	8	—
Eye Conditions	1	5	6	4
Ears, including Otitis ...	4	6	10	8
Skin Affections	4	14	18	8
Ringworm	—	2	2	4
Rheumatism and Heart ...	11	43	54	80
Chorea...	5	29	34	47
Infectious Diseases	4	19	23	25
Mental Conditions and Epilepsy	1	8	9	10
Orthopaedic Defects ...	2	12	14	26
Nephritis	4	3	7	11
Tubercular Bones and Joints	—	10	10	14
Tubercular Glands	2	4	6	—
Other Defects and Diseases	9	26	35	67
	60	201	261	332

The following table shows the nature of the conditions which have prevented the attendance of children who are not on the register of any school:—

Disease.	1931.	1930.
Tuberculosis of Chest	10	12
Other Chest Conditions	17	18
Eye Conditions	10	3
Ear Conditions	3	3
Rheumatism and Heart Disease ...	17	24
Mental States	42	63
Chorea	3	6
Epilepsy	4	8
Orthopaedic Defects	25	44
Tubercular Bones and Joints	10	12
Skin Conditions	4	—
Other Defects	49	86
	194	279

EYE DEFECTS.

Reference to the Tables in the appendix shews that 3,925 children were dealt with for eye defects other than Minor Ailments, and that glasses were prescribed for 2,958 children through the clinics, and 327 through other agencies. The supervision of children suffering from squint is begun as early as possible and is continued by periodic examination at Great Charles Street Clinic, a very large number being regularly seen by Dr. Aldridge. A considerable number of these cases have already been under supervision at the Children's Hospital through the Infant Welfare Department.

Mr. Archer Hall, Ophthalmic Surgeon to the Education Committee, and Surgeon to the Midland Eye Hospital, reports :—

"During the year I prescribed spectacles for 501 children at the Great Charles Street Clinic. Analysis of these cases shews the following errors of refraction—

Hypermetropia	108
Myopia	51
Compound Hypermetropic Astigmatism	215
Simple Hypermetropic Astigmatism ...	8
Compound Myopic Astigmatism... ...	87
Simple Myopic Astigmatism	8
Mixed Astigmatism	24
	501

In addition to these I examined 141 cases in which the glasses were still correct or in which glasses were of no benefit.

I found it necessary to certify 38 children as part-sighted, and education at the Special Part-sighted schools was arranged. In one case admission to the Edgbaston Blind Institution was necessary.

Eleven cases of external eye disease were transferred to the Birmingham and Midland Eye Hospital and there treated by me.

At the Hospital I performed operations on 63 children transferred from the Clinic. Parents have taken a greatly increased interest in these operations, and have on advice almost invariably availed themselves of the opportunity of having an operation performed.

With regard to the provision of spectacles, some of the public are inclined to think that by the using of glasses, children become dependent on them and that in consequence after wearing them for a period, the vision becomes worse. This is quite an erroneous idea, for the use of glasses which accurately correct the error of refaction prevents eye-strain, headaches and general nerve-stress, a very real factor, although difficult to assess.

At the same time, care is taken that any excessive prescribing of spectacles does not occur, and for a large number of the lower degrees of refractive error, glasses are not ordered."

DENTAL TREATMENT.

During the year, 92,150 children were inspected by the Dental Surgeons in the schools. This represents 72.5 per cent. of the children in average attendance. Of those inspected 69,143, or 75 per cent, were found to need treatment. Of these, 36,322 individual children received treatment in the School Clinics. This represents 52.5 per cent of the number referred for treatment. This percentage is a very satisfactory increase on the percentage of previous years, and to it must be added the increasing number of those parents who take their children to their

private dentist. How many do so it is difficult to determine, but in one school recently re-inspected it was 8 per cent of the total number referred for treatment. It must be borne in mind that the education of the public in the importance of Dental Hygiene must inevitably be slow, although during the last twenty years an enormous improvement in this direction has taken place. Moreover, the early conservative treatment is already beginning to bear fruit in the schools, and each successive age group inspected shews a larger percentage of children having sound and healthy mouths. As an example, two schools recently re-inspected gave the following percentage of children who did not require further treatment :—

	Infants.	Junior.	Senior.
School A	21.5	26	34.8
School B	15.7	28.5	32

This inference is drawn from the figures of the City as a whole, as shown by the following table :—

Number of Children aged	Number Inspected.	Number found to require Treatment.	% requiring Treatment.
5	8,968	7,221	80.5
6	9,262	7,395	79.8
7	9,929	7,957	80.5
8	11,077	8,607	78.
9	11,348	8,802	77.5
10	12,564	9,114	72.7
11	12,191	8,597	70.5
12	8,158	5,542	67.8
13	7,394	5,107	69.2
14	1,168	745	64.
" Specials "	91	56	61.5
Totals	92,150	69,143	75

Various administrative schemes are on trial in different areas of the City to aid in the production of a higher percentage by encouraging the parents to obtain treatment. Too often the suggested treatment is neglected until conservative treatment is no longer possible, and extraction is necessary. This acts adversely in two ways. The child is brought to the clinic as a "casual" without an appointment (there were 5,543 casuals during the year). Extractions in these circumstances very generally require a general anaesthetic, which means the services of two dental officers. The larger the number of anaesthetic sessions the smaller the number of sessions which can be devoted to conservative treatment and to inspections. But the longer the period which elapses between the re-inspections the larger the number of teeth found too far decayed for conservative treatment which might have been saved by earlier inspection, so that those parents who are prompt to take advantage of the Dental Surgeons' advice are placed at a disadvantage by those who are indifferent. Dental decay may spread so quickly that the interval between inspections ought not to exceed nine months in any truly conservative scheme of dental treatment.

The report on the dental treatment in the Cottage Homes is given under that heading, page 29.

RINGWORM.

One of the most notable features in the development of the medical supervision of Elementary School children and the introduction of

X-ray treatment for this parasitic disease has been the reduction in the number of children suffering from Ringworm. Formerly, this infection was one of the chief causes for prolonged absence from school; to-day as a cause of long absence it is negligible. An outstanding fact in corroboration of this statement is that formerly on account of the frequency of Ringworm infection, it was the routine practice to cut the hair of all children admitted to the Fever Hospital. To-day, however, this is no longer necessary.

The number of children treated at Great Charles Street was one hundred. This includes a number of children from the Cottage Homes, where, however, the infection has been now completely eradicated.

A number of outside Authorities have continued to make use of the X-ray by arrangement with the Education Committee, and 18 cases were thus dealt with.

VERMINOUS CONDITIONS.

The intensive campaign against body and head vermin, mentioned in the Report for 1930 has yielded satisfactory results. 314,033 examinations were made out of which 14,832 individual children were found to be unclean. The real difficulty lies in the fact that there is a small number of unsatisfactory homes from which the children are persistently verminous. The presence of these children is the principal cause of the spread of the infection to the children of more careful parents. Legal proceedings were taken in sixty-one cases.

SCABIES.

There has been an increase in the incidence of this form of parasitic infestation; 271 children were treated at the various centres of which seven were re-infections.

AURAL TREATMENT.

At the Handsworth Clinic 1,367 children were operated upon for the removal of Tonsils and Adenoids, making a total of 24,258 operations since the opening of the clinic. For the first time a death has to be recorded, actually the 23,000th operation. The child collapsed suddenly after removal to bed and recovery of consciousness. The post-mortem examination which was performed by Professor Haswell Wilson, showed in a marked degree all the characters of *status lymphaticus*, and the verdict at the inquest was to the effect that "the operation was necessary, that it was carried out with proper skill, and that the anaesthetic was properly administered by a competent person." This condition cannot be detected during life, for the child whose tissues shew these pathological changes has every appearance of health. This was true of the child in question. Apart from this case, there were no cases which caused any real anxiety. Five children were sent into Hospital for various conditions which rendered it advisable that they should be kept under observation.

The Secretary of the Ear and Throat Hospital reports that 513 Birmingham school children were operated upon for tonsils and adenoids during the year.

At the Aural Clinic, Great Charles Street, 1,086 children have been examined by the Consulting Aural Surgeon. In addition, 4,490

attendances have been made for treatment of various conditions. In many instances the treatment must be carried out over long periods of time, and often entails daily visits. 68 children were also treated by ionisation for chronic otorrhoea together with 5 children treated from the areas of outside education authorities.

The arrangements with the Public Health Committee for the use of four beds at the Selly Oak Hospital has enabled a radical cure of middle ear and mastoid disease to be performed on 13 children, and 69 cases have been admitted for short stay operations such as the removal of nasal or aural polypi, the draining of the antrum and similar conditions.

Mr. F. B. Gilhespy, Consulting Aural Surgeon, has submitted the following report:—

"The most striking fact apparent on looking through a list of fifty patients under 14 years of age, who required some form of operation for relief of nasal or otitic symptoms, was that in 38 of these patients the operation for removal of tonsils and adenoids had been performed. This is not equivalent to saying that in these 38 cases the operation had not been successful in accomplishing what it had set out to perform or in any way a condemnation of the operation for removal of tonsils and adenoids. From a perusal of the case histories certain information can be obtained and useful criticisms perhaps made. In certain cases the operation itself could be blamed. These were few in number, and the operation had been performed at an early age— under five years in all cases, and sometimes as young as three years. In these cases adenoid tissue was found to be causing nasal obstruction or nasal catarrh, and on removal of this tissue these symptoms cleared up. It is possible that adenoids may recur after removal, but as in certain of these cases the tonsils had not been enucleated successfully it is probable that the size of the patient had rendered the operation a difficult one. In these patients a formal dissection of tonsils and further removal of adenoids was undertaken. The further removal of adenoids is not in itself a serious operation, but if the adenoids in the first place have been roughly removed, there persists a nasal catarrh and a rough post-nasal space, both of which are hard to rectify.

My own preference in these small children is to do a tonsil dissection with the removal of adenoids, under a deep anaesthesia, when a more careful toilette of the throat can be accomplished. These children, I realise, cannot be catered for in all cases in this way, and, therefore, their suitabitity for an early operation should be carefully considered.

In a further group of cases who had a persistent nasal discharge, despite the fact that their tonsils had been well removed, a maxillary antral infection was found. In these cases the preliminary tonsil operation was only a step in the attempt to cure this sympton. I only see the patients whose symptoms have not cleared up, and in the majority of patients the tonsil and adenoids operation is therefore presumably successful in curing the nasal symptoms for which the operation is advised. The possibility of an antral infection must

be kept in mind, however, when advising patients as to the advisability of the throat operation and the subsequent prognosis.

The majority of these fifty patients had nasal symptoms and, in a good percentage, ear disease, improvement in which apparently was prevented owing to constant re-infection from the nose. Frequently maxillary antrum trouble was found to be present. In many cases this is easy to prove on washing out the antra, but from naked eye appearances I think that at times the antrum must be intermittently infected. I have seen noses with obvious pus one week but on washing out some weeks later the antra have given negative results, despite the fact that the child had been referred to me with a history of chronic nasal discharge. It seems unlikely that other sinuses can be affected at this early age. As I have said before in former reports, these cases do not all clear up at once after antral operations, and do not do so very often until removed to more healthy and less crowded surroundings. In some cases ultra-violet light seems in a measure to help in the fight against their environment. An increasing number of these cases is being sent to Great Charles Street Clinic from other clinics."

In my Report for 1930 I drew attention to the importance of an accurate determination of the range of auditory perception in deaf children by means of an audiometer. Mr. Gilhespy has carried out an investigation along these lines by the examination of a number of children. He has used a Western Electric audiometer for the purpose and has given the following comments.

"During the year 1931 I have examined certain children with a view to their certification for one of the Special Deaf Schools. For certain of these patients I have used a 2B Western Electric audiometer. For the interest of other Educational Authorities who may be tempted to purchase this instrument with a view to getting exact measurements of the hearing of their deaf children, I would offer certain warnings based on the experience of working my own instrument.

With children suffering from any form of deafness associated with prolonged bone-conduction the instrument largely records bone-conduction and not hearing by air, which is used in conversation. These children, if old enough to use the instrument, would hear the telephone well but not ordinary conversation, owing to the bone-conduction element of hearing which is present when a telephone receiver is placed tightly against the ear. An instrument which would probably be of more use would be the type of audiometer with multiple receivers, in which a class of twelve children can be tested for conversation which is transmitted from a gramophone. In this way large numbers could be quickly tested for minor defects, which might be remedied by treatment. This is being done in London at the moment. In this direction it might be emphasized that the accommodation at our Special Schools for cases of moderate deafness requiring some form of lip-reading is very inadequate. At the present time, only very severe cases of deafness can be received. Parents also are insufficiently aware of the benefits of lip-reading for deaf children and often shew antipathy to the suggestion that the child should be sent to a special school."

ORTHOPAEDIC SCHEME.

The delay in the transfer of Greet Clinic to the new premises in Sparkhill has prevented the opening of a third Remedial Exercises Clinic to serve that side of the City. In consequence the distance from Sheep Street and John Bright Street Clinic makes it very difficult for parents living in this district to attend. The work of the two clinics has shewn a very considerable increase compared with previous years :—

Defect.	1930		1931	
	Admitted.	Discharged.	Admitted.	Discharged
Spinal Curvature and Postural Deformity	44	32	95	46
General Muscular Debility ...	11	8	23	20
Various forms of Paralysis ...	19	12	17	16
Deformities of Feet	56	46	116	64
Chest Conditions, Asthma, etc. ...	8	3	7	7
Injuries to Limbs	3	3	6	7
Wry Neck, etc.	2	5	8	6
Total ...	143	109	272	166

In addition 730 children attended the remedial exercises clinics for breathing exercises following the removal of tonsils and adenoids.

The arrangements with the Royal Cripples' Hospital and the Warwickshire Orthopaedic Hospital made three years ago for the In-patient treatment of non-tuberculous cases, and for mutual interchange of out-patients for remedial exercises, massage and electrical treatment, has proved of great advantage to the children and parents. The average number of such children of school age who were treated as in-patients at any given time at the Royal Cripples' Hospital was 171, and the number of children admitted to the Warwickshire Orthopaedic Hospital, at Coleshill, during the year was 33. In the same period in the Out-patient Department of the Royal Cripples' Hospital the work carried on was as under :—

Classification.	Out-Patient Clinic.		Massage Department.	
	No. of cases.	Attend-ances.	No. of cases.	Attend-ances.
Talipes, club feet, etc.	83	596	10	247
Congenital Deformities	16	75	8	271
Dislocated hips	21	91	3	164
Spastic paralysis	38	193	16	399
Infantile paralysis	237	1,986	73	2,795
Birth Palsy	10	42	5	277
Rickets	112	384	16	343
Flat feet	131	531	96	2,071
Claw feet	72	472	11	235
Scoliosis, kyphosis, etc.	76	353	52	2,158
Fractures	11	63	4	104
Injuries	29	126	12	403
Amputations	8	33	1	25
Osteomyelitis	10	56	2	99
Arthritis	8	65	3	64
Perthe's disease, Kohler's disease and Synovitis	17	98	—	—
Unclassified	35	133	1	65
Total, 1931	914	5,297	313	9,720
Total, 1930	860	6,166	350	12,007

Average attendances per patient—Out-Patient Clinic. 1931—5.79
1930—6.8
Massage Clinic. 1931—31.05
1930—34.3

ULTRA-VIOLET LIGHT TREATMENT.

With the exception of Greet, all clinics are equipped with a Mercury Vapour Lamp, and 874 children have been treated by this means. The experience of each year strengthens the impression of previous years that in ultra-violet irradiation we have the most potent curative agent for many of the morbid conditions of childhood. The improvement in the general *habitus* of the child is often most striking even to a casual observer, but it cannot be too strongly emphasised that the choice of the type of case likely to be benefited, and the experience in the actual administration are most important elements in the success of the treatment. Without these two requisites treatment may result in disappointment.

Dr. Wilkins, who has carefully tabulated the results of the cases under his own charge at Sheep Street, has reported:—

> "Of the 266 cases treated at Sheep Street, the results of 137 have been followed up by me. 62 others had attended for too short a time to obtain reliable results, and of the remainder the information available is as yet insufficient for inclusion in this report. A large proportion of the 137 cases in the table have been re-examined, and their parents interviewed at periods varying from one to nine months after treatment has ceased. The opinion expressed in previous reports that the benefit derived from irradiation tends in many cases to be permanent and to help the child towards established health has been confirmed. A detailed review of the cases gives support to the already accepted view that ultra-violet irradiation increases the resistance to infection, improves the alkaline balance of the blood, diminishes abnormal nervous irritability, improves muscular and vasomotor tone, and acts as a general stimulus to body-metabolism."

Ailment.	Total.	Cured or much improved.		Improved.		Not improved.	
		No.	%	No.	%	No.	%
Debility ...	40	25	62.5	7	17.5	8	20
Respiratory Infections and Catarrhs ...	41	25	61	12	29	4	10
Asthma	7	3	43	3	43	1	14
Rheumatism and Chorea	38	23	60.5	13	34.2	2	5.3
Enuresis	4	3		—		1	
Chilblains	2	2		—		—	
Vomiting attacks ...	2	2		—		—	
Blepharitis ...	1	—		1		—	
Conjunctivitis ...	1	1		—		—	
Debility and recurrent synovitis ...	1	1		—		—	

It will be noted that 80 per cent. of the debility cases shewed substantial improvement which was found in a large number of cases to have been maintained several months later. Four of the "much improved" group were found to have fallen off. This is not altogether surprising in view of the adverse environmental conditions under which many of these children live. In the treatment of asthma irradiation often has greatly improved the condition in some cases, but it appears that treatment must be continued for long periods or intermittently. One child had been free from asthmatic attacks ten months after treatment had ceased. In three cases, the attacks, although continuing, were less frequent and much less severe.

The treatment of indolent sores, infected wounds and persistent impetigo under a few exposures is exceedingly satisfactory, as also is the simultaneous treatment of enuresis with irradiation and increasing doses of belladonna. This resulted in the apparently complete cure in three out of four cases.

Concerning the Rheumatic cases, Dr. Wilkins writes :—

"Of the 38 children treated for rheumatic complaints 14 were cases of chorea, or chorea and rheumatism combined, the majority were suffering also from various degrees of general debility. Of the 24 suffering from rheumatism without choreic symptoms 15 were greatly improved after an average of 23 radiations, and 7 of these were found to have maintained their improved condition for an average period of 7½ months after finishing their treatment. In all of these the rheumatic pains had ceased or almost so. One of these children had derived great benefit from a previous course of radiation in 1929, and two others are beginning a second course in the New Year. One child always relapses when treatment is interrupted. Of the remaining 9 of this group 8 were "improved," and the other one, a case of articular rheumatism, showed such slight benefit as to be classed with the "not improved." Four of the "improved" cases maintained their gain for several months after the end of their courses, but one was found to have relapsed after two months.

Of the four children complaining of rheumatic pains with choreic symptoms all were greatly improved after an average of 17 radiations, three of them maintaining their improvement 7 months later, and one being subsequently transferred to Haseley Hall. Of the 10 suffering from chorea without rheumatic pains 4 were apparently cured; 5 were substantially improved, of whom four maintained their improvement for several months later; and one, who was only slightly better, was classified with the "not improved."

In judging the results in this rheumatic and choreic group, it should be made clear that they were all of the ambulatory type, no acute rheumatic fever or severe chorea being included. At the same time it should be emphasised that the majority were children who were constantly or very frequently complaining, many making very poor attendances at school with recurrent disabling attacks of rheumatism and feverishness. Experience this year has been to confirm previous conclusions that ultra-violet irradiation is an important line of defence against juvenile rheumatism.

The two cases cured of recurrent vomiting deserve special mention. It had been found in previous years that such vomiting or bilious attacks tended to cease in children receiving radiation for general debility. It seems likely that the improved alkaline balance of the blood which is known to result from ultra-violet irradiation counteracts an acidosis tendency, the underlying cause of the vomiting, and that the increased appetite and activity that commonly follow irradiation so improves metabolism as to prevent recurrence. In one of these cases there had been no recurrence of vomiting for at least 4 months after treatment ceased."

SPEECH CLASSES.

Classes for speech training have now become an accomplished fact. These classes are for the present being held at Montgomery Street in the mornings and at Severn Street in the afternoons. Though too short a period has elapsed since these classes were opened in September to allow of any detailed report as to the progress of those children who attend, the results have already been very encouraging. The majority of cases under consideration are stammerers, but there is also a small section of children suffering from other speech defects, e.g., lisping, lalling and delayed speech.

Admissions at present have been as follows :—

Montgomery Street.	Boys.	Girls.	Total.
Stammerers	43	13	56
Other Defects	8	3	11
	51	16	67

Severn Street.	Boys.	Girls.	Total.
Stammerers	32	4	36
Other Defects	4	2	6
	36	6	42

Miss Rosser, who is in charge of the classes, has made the following report :—

"The ages of the children range from 7—13. When, owing to lack of room, it has been necessary to give preference to certain children, the decision has usually been made in favour of the older children, as it was felt that they would have less opportunity for treatment at a later date. No stammerers are included under the age of 9. The ideal age for the treatment of stammerers is between 9 and 12 years old, when the child is beginning to be capable of responsible individual effort, but the habit has not yet become too deeply rooted and acute self-consciousness has not yet developed to add to the problem. There are, at present, 20 boys who have been certified for admission, who will be kept under observation until a place can be found for them. Many younger children are still waiting for an interview; they are being called up at the rate of 6 each week, and it is hoped that the advice given to the parents will at least prevent the defect from becoming more severe.

The stammerers are divided into classes of about 10 children, arranged according to age. There is one class composed entirely of girls of all ages, which has proved quite satisfactory up to date. Each group attends for about one hour twice a week so that the ordinary school studies can be continued and their existing social life maintained.

Although group-work is both convenient and valuable, each stammerer requires individual study, and it is dangerous to lay down rules for treatment *in detail*. For instance, the question as to whether a child should be exempt from oral work in school during the early period of treatment, can only be decided by consideration of the particular child. For many it may be wiser to allow such a period; for some it merely adds to the sense of "difference" from

their fellows, and of resentment because they are not given a chance to show their capability. This is one of the problems in which consultation with the day-school teacher is of such value. The schools from which the children under observation are drawn are being visited in rotation, and as soon as possible opportunities will be offered to the teachers to visit the centres. From time to time the homes are also visited.

The attendance and enthusiasm of those admitted has, with very few exceptions, been very satisfactory. In the matter of progress it is possible to say that on the first term's work there are no stammerers of whom no improvement is reported, either at school or in the classes, and only two children under treatment for other defects have not yet shown signs of benefiting from it. As a rule, progress is more rapid in the classes than in school or at home, but 32 of the stammerers and 9 with other defects appear to be maintaining an even rate of improvement under all conditions. In several cases, other nervous symptoms, complementary to the speech defect (such as night-terrors and enuresis) have disappeared since the treatment began, and in nearly all the children there is evidence of improvement in their general emotional condition.

It is sometimes asked "How long do you allow each child to attend the classes?" This question can only be answered by reference to each individual case. It is impossible to foretell how long a period of treatment any individual child may need, and sometimes the milder cases take longer time than the more severe. As long as a child attends willingly and is gaining even the slightest benefit it is worth while to allow him or her to continue.

At the end of the term 4 boys left school. Three of them were classed as "Improved" and one as "Much Improved." One boy was discharged as he could not attend regularly owing to the difficulty of arranging an escort. One girl has been withdrawn by her somewhat impatient parents, and another girl has left the town. The basis of all treatment is the removal of any sense of medical or physical tension and the inducement of the contrary condition of mental or physical relaxation. The first step, therefore, in treatment consists in distracting the attention from the idea of stammering, and focusing it upon the goal of good speech. The idea of good speech is impressed by constant repetition of the sentences—"Every day and in every way I am getting better and happier. When my feeling of ease is deep enough the thought flows over my lips of itself." The pupil is also given relaxation practice and is trained in reading, verse speaking, and mime gesture. This last serves not only as a means of "distraction," but also as an aid to co-ordination of thought and movement, and as a means of stimulating the imagination so that interest is directed away from self towards other people and objects. Self confidence is developed by chorus practice leading gradually to solo work. Self-consciousness is decreased by impromptu dramatic work."

Dr. Kemp, who has been associated with the selection of the children for training, writes:—

"The causation of stammering has to be considered under two headings, viz., *constitutional*, by which we assume an inborn liability to nervous disturbance due to instability of the nervous system, and *environmental factors* such as shock, fright, illness, or strain, these being secondary or determining elements.

If the treatment is to meet with any degree of permanent success, the causal factors must first be investigated.

In connection with this investigation 173 cases have been interviewed by Miss Rosser and myself in the presence of one or other parent. These cases included 149 stammerers (126 boys and 23 girls) and 24 children with other speech defects (15 boys and 9 girls).

The interview also gives us the opportunity to gain some insight into the relations between parent and child, and we impress upon them that attendance at the classes is entirly voluntary, and that everyone concerned has an active part to play in the treatment, although the real cure lies within the child's own power. An atmosphere of trust and friendship between instructor and children is essential, and the idea of working as a team is valuable.

Of the stammerers 91 boys and 17 girls showed some definite evidence of hereditary nervous abnormality, i.e., parent or grandparent neurotic, or another member of the family a stammerer. In 76 boys and 15 girls there was probably a severe shock to the mother during pregnancy or to the child later. 59 of the boys and 12 of the girls were subject to night terrors or showed similar neurotic manifestations. Sixteen of the boys and 4 of the girls suffered or had recently suffered from enuresis. Nineteen boys and 8 girls were habitual nail-biters. It has been maintained by some authorities that stammering is a natural consequence of left-handedness, or at least that the two are frequently coincident. It is, therefore, interesting to note that of our cases only 15 boys and one girl were left-handed. Although there are instances of left-handed children who have developed a stammer as a result of being forced to use the right hand, we agree with Boome and Richardson that such cases are rare.

For lisping, lalling, and delayed speech, exercises developing greater flexibility in the articulatory muscles are practised with the help of mirrors, so that the pupils may learn the appearance of the correct movement. Gradually they become aware of the motor sensations. The separate sounds (mainly consonants) are practised, after an exact description of the movement has been made. As a rule, the more easily observed labial sounds are studied first, and from these it is possible to proceed to the obscure palatal and sibilant sounds. The use of "blowing" games is specially important for the practice of sibilants and also in cases of slack palatal movement.

The exercises are regularly followed by the use of words containing the particular sounds practised, by reading, speaking games, recitations, etc."

It is becoming increasingly evident that no speech defect presents merely a phonetic problem, and although the neurotic element is not always as acute in these cases as in that of stammering, it is an important factor and must receive due consideration.

A careful study of the home and school environments is therefore made, and the co-operation of parents and teachers is enlisted in the attempt to remove those circumstances which appear to aggravate the condition and to provide an atmosphere which will help towards successful speech.

In cases which do not readily respond to the methods of suggestion, even after the use of Word Association Tests (which often lead to frank discussion of hidden fears and worries and their consequent disappearance), it is desirable to call upon more specialised psychological assistance, and in this the Child Guidance Clinic will play an important part.

In addition to these classes, the classes for special training for cleft palate and other types of speech defect which have been held at the Children's Hospital by Miss Parsons have been continued.

NURSERY SCHOOLS.

At Summer Lane an Artificial Sunshine Lamp has been placed in the room used for the smaller children. While it is of course not possible to state in definite terms what is the effect upon the health of the children, it gives a cheerful aspect to the room and the Head Mistress is emphatic as to its value.

There has been no outbreak of infectious disease of any magnitude with the exception of 27 cases of Mumps at Summer Lane (accommodation 74).

Miss Bolton makes the following report on the mid-day meal :—

> "The mid-day meal has now been provided for just over a year, and has proved to be a successful venture. The school day is far less tiring now that the children do not need to go home at mid-day in all kinds of weather. They have far more vitality and have a healthier appearance. The children have a cup of warm milk after their afternoon sleep, and through a gift of Cod Liver Oil we have been able to give to every child a teaspoonful in the morning and afternoon."

A similarly favourable report of the advantage of the mid-day meal is forthcoming from Tiverton Road Nursery School (accommodation 60).

Of the Nursery Class at Dartmouth Street (accommodation 32) there is nothing particular to report.

At all three Nursery Schools the children come for the most part from homes where unemployment, incapacity or death of a parent has brought about conditions of great poverty.

SECONDARY SCHOOLS.

The tabulated list of defects found in the inspection of 6,155 pupils of Secondary Schools shews that 1,383 pupils had some defect for which treatment was indicated. An analysis of the items which make up this apparently formidable figure, which is 22.4 per cent. of the total number examined, shows how totally misleading a tabular statement of this kind can be (Table IIa, Appendix). Errors of refraction (545 or 39.4 per cent.) form by far the greatest proportion. Similarly, the heading "deformities" refers in practically every case to minor conditions associated with rapid growth, e.g., postural defect, tendency to flat-foot, etc., which are dealt with in the course of the physical exercises given in all the schools. Speaking generally, the physical condition of the pupils in the Secondary Schools is exceedingly good. Even dental caries is only very rarely extensive, and the mouths of the pupils show far more dental attention and personal interest in the maintenance of a clean mouth than was the case when the medical inspection was first extended to Secondary Schools eleven years ago. These remarks apply with special force to the intending teachers who now shew a uniformly high standard of dental care and attention. Thus in my examination of 201 intending teachers during the Summer only 8 shewed teeth which appeared to be unsaveable, and of these in only one case was there more than one tooth in this condition.

CAMP SCHOOLS.

Although the children sent to the three Camp Schools are not primarily chosen on grounds of health, the Schools form a valuable adjunct to the activities of the Education Committee for the promotion of the physical welfare of the children who are sent to them. The regulated life under open-air conditions and healthy environment often has a remarkable effect upon the emotional outlook of the child, and quite a number of children whose behaviour points to maladjustments of home or school have completely recovered their emotional stability after a sojourn in one of the schools.

The number of children who attended these Camp Schools has been :—

	Headington.	Bell Heath.	Blackwell: (Girls).
School open	34 wks.	33 wks.	31 wks.
No. of Children	432	1,003	979
No. of Schools sending Children	11	29	46

PHYSICAL TRAINING.

Further progress has been made in the provision of playing field accommodation. In 1928 the Education Committee owned 168 acres. At the present time, 263 acres are owned or leased by the Education Committee. Eight acres are loaned, and 16 acres of the Public Parks are utilisable for organised games.

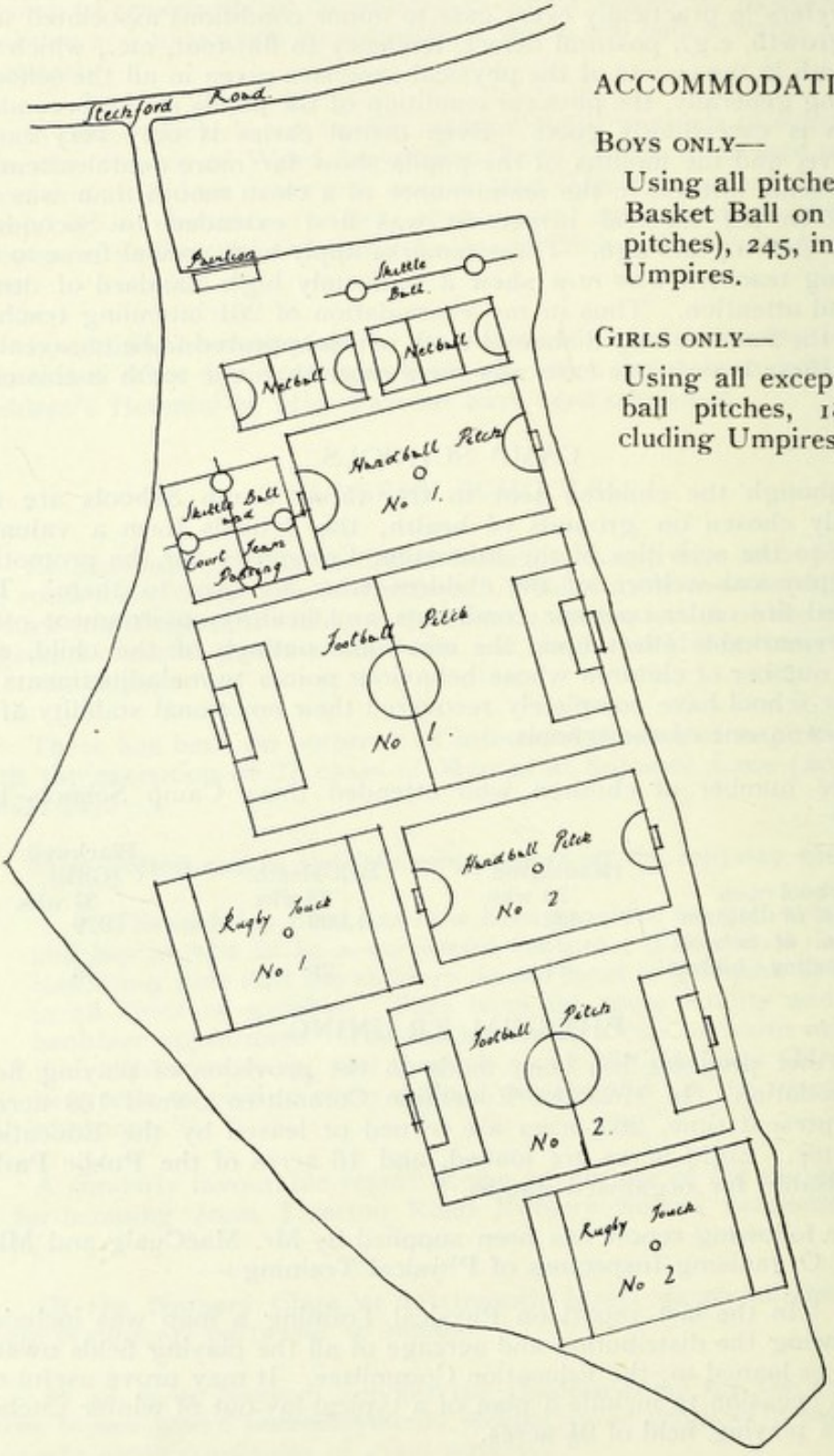
The following report has been supplied by Mr. MacCuaig and Miss Thorpe, Organising Inspectors of Physical Training :—

> "In the last report on Physical Training a map was included showing the distribution and acreage of all the playing fields owned by, or loaned to, the Education Committee. It may prove useful on this occasion to include a plan of a typical lay-out of winter pitches on a playing field of 9½ acres.

STECHFORD PLAYING FIELD.

PLAN OF LAYOUT FOR WINTER 1930-31

Acreage—9½.



ACCOMMODATION :

BOYS ONLY—

Using all pitches (Free Basket Ball on Netball pitches), 245, including Umpires.

GIRLS ONLY—

Using all except Football pitches, 183, including Umpires.

Since 1921, the Physical Training Department has been actively engaged in carrying out experiments with a view to obtaining the greatest amount of use from the playing fields while avoiding overcrowding and undue wear and tear of the turf. To this end, therefore, new games to suit entirely new facilities and demands have been devised. These require less space than the national games, while occupying the same number of players per pitch, and, therefore, more pitches and players can be accommodated on a given area. They are generally simpler in technique, require less practice before being enjoyed, and serve as stepping stones to netball, hockey, cricket and football, especially for the younger scholars. They provide as much scope as the national games for developing team work and leadership, and sufficient exercise to satisfy the most athletic scholars. The development of such new games as Rugby Touch, Handball, Mass Bowling and Hop Ball, has completely revolutionised the conception of the possibilities of Organised Games in a City like Birmingham. This is illustrated, for example, by the fact that a field of 14 acres actually accommodates 4,000 scholars weekly, while another of 10 acres accommodates 3,000. If provision were made for games like Football, Hockey and Cricket only, the number of scholars which could be accommodated would not be more than a quarter of this. The turf on these fields is in very good condition, and there is ample space for play at all times.

It will be understood, however, that the economic use of playing space on the lines mentioned cannot be achieved without organisation and direction. This is particularly the case when 800 teachers are involved. These teachers are not specialists, and have to be trained not only to play the new games, but also to appreciate their finer points. The policy of providing further training for these teachers, therefore, has been vigorously pursued by means of Day Training Courses held on the playing fields for the past 11 years, with the result that a large proportion of the school staffs are conversant with the rules and methods of play, and are themselves good players.

The marking of playing fields and the provision of apparatus are under the direction of the Physical Training Organisers. A copy of the lay-out of the appropriate playing field is supplied to schools. This arrangement simplifies organisation and supervision as the teachers can thus easily and effectively plan their programme of games beforehand when they can see the kind and number of pitches provided, and their relation to each other."

PROVISION OF MEALS.

The conditions of trade depression and unemployment is reflected in the large increase in the number of free meals which have been provided, and the daily average in the number of recipients throughout the year.

	1928	1929	1930	1931
Total No. of Meals provided	412,701	345,772	406,196	679,744
Daily average, 1st January	1,058	1,088	1,045	1,577
,, ,, 1st July	1,068	841	861	1,782
,, ,, 31st December	1,050	1,051	1,565	2,439
Total No. of children who have received meals	3,702	3,308	3,819	7,231

INFECTIOUS DISEASES.

The Health Department has supplied the following figures for the chief forms of notified infectious disease :—

	1923	1924	1925	1926	1927	1928	1929	1930	1931
Scarlet Fever	2,619	2,219	1,852	1,709	1,510	1,521	2,413	2,397	2,761
Diphtheria ...	1,537	1,887	1,896	1,804	1,543	1,552	1,611	1,701	1,171
Cerebro-spinal Meningitis	4	11	7	10	12	12	15	14	25
Anterior Poliomyelitis	33	39	11	38	15	6	6	9	3
Encephalitis Lethargica	29	282	92	89	53	41	27	10	18
Opthalmia Neonatorum	433	413	335	395	409	530	522	596	617
Polio-Encephalitis	3	6	1	4	2	1	3	0	1

These figures refer to cases of all ages, but as the greatest amount of infectious disease occurs before adolescence is completed, they afford a reliable index as to the general incidence in the school population.

DEATHS IN CHILDREN OF SCHOOL AGE.

The accompanying table shews the number of deaths amongst children of school age for the past years :—

Causes of Death Children 5-15	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Measles	8	24	19	11	5	13	5	9	2	8	3	16	6	22
Scarlet Fever	7	24	40	16	11	18	7	7	4	3	1	3	9	4
Whooping Cough	10	3	8	5	7	0	2	4	8	2	4	7	6	4
Diphtheria	87	63	95	64	49	60	51	39	64	37	38	41	34	36
Influenza	223	42	25	2	6	6	8	10	2	9	4	14	2	2
Pulmonary Tuberculosis....	52	31	26	25	22	24	17	23	16	17	10	18	13	13
Tuberculosis Meningitis	20	19	9	15	15	13	12	20	13	18	13	7	11	14
,, Peritonitis & Intestines	9	16	5	6	7	6	3	5	6	9	1	6	2	2
Other Tuberculous Diseases	21	17	17	7	7	12	4	9	5	11	8	4	5	5
Rheumatic Fever	10	9	17	8	14	13	17	22	24	21	17	18	26	18
Cerebro-Spinal Fever....	4	2	3	0	3	0	0	0	0	1	2	2	2	1
Heart Diseases....	27	41	30	28	31	24	21	25	27	14	22	22	13	11
Bronchitis	10	11	5	3	4	5	0	4	3	6	1	3	0	0
Pneumonia	91	56	49	46	36	31	25	31	35	34	23	26	16	23
Appendicitis	16	25	20	20	15	13	14	13	11	10	13	10	9	8
Accidents	57	44	43	29	24	32	25	40	43	28	46	58	51	38
All Other Causes	86	99	110	89	80	99	88	79	89	96	78	104	77	65
Total	738	526	521	374	336	369	299	340	352	324	284	359	282	266

The approximate number of the population in the age-group concerned has been calculated as—

5 to 15 years, 160,000

The approximate death rate for this period was 1.7 as against 1.7 in 1930.

JUVENILE DELINQUENCY AND CHILD GUIDANCE.

The part which is played by social maladjustments in the production of juvenile delinquency is now becoming more recognised, and the attempt to reduce the disharmony is assuming an increasing importance as an integral part of the School Medical Service. The "difficult child" is an ancient but ever new problem, and each year brings more children for a psychological investigation into the cause of the difficulty, as parents, teachers, magistrates and others learn how much help may accrue from an opportunity of this kind. During the year I have examined at the Remand Home and Girls' Hostel forty-six boys and girls, and a considerable number of other children brought by parents, teachers, probation officers, and the juvenile employment and welfare department, and from other sources. In many cases a change from the environment of home and school has produced extraordinarily satisfactory results. This has been effected by sending the child to one of the Camp schools, where the complete change of scene and of the routine of both home and school under sympathetic supervision, has given the child sufficient stability to enable him to face the realities of his ordinary life. In my Report for 1930 I gave an analysis of the home conditions of 41 children whom I had examined during that year. Through the kindness of the Probation Officers an analysis of 200 consecutive cases of juvenile delinquency was obtained with results which are shewn in the accompanying table :—

TABLE I.

HOME CONDITIONS OF 200 CONSECUTIVE JUVENILE COURT CASES.

Age.	Both Parents Dead.	Father Dead.	Mother Dead.	Parents Separated.	Step-Father.	Step-Mother.	Illegitimate.	Living with Relatives.	Normal Home.	Total.	% Broken Home.
Under 10	—	3	3	—	—	—	—	—	14	20	30
10—12	1	8	3	1	2	2	2	—	22	41	46.3
12—14	1	9	2	2	2	1	4	1	33	55	40
14—16	1	25	6	9	6	2	5	—	30	84	64.3
TOTAL	3	45	14	12	10	5	11	1	99	200	—

TABLE II.

OFFENCES COMMITTED BY 200 JUVENILE COURT CASES.

Age.	Stealing Bicycle.	Watch.	Money.	Cigarettes.	Fruit, Sweets, etc.	Tools, Toys. Flash Lamp.	Breaking and Entering.	Sex Offence.	Total.
Under 10	2	7	1	1	4	—	5	—	20
10—12	4	3	12	4	3	7	8	—	41
12—14	2	4	18	7	7	11	6	—	55
14—16	6	6	21	4	22	18	3	4	84
TOTAL	14	20	52	16	36	36	22	4	200

It will be noted that there were in the series 101 children whose home life had been broken by some adverse circumstance. This 50 per cent. of such cases is considerably higher than that of the distribution of broken homes in the community as a whole. Moreover it does not include the manifold forms of home maladjustments which can best be described under the continental term *Elternkonflikte*, and are a fruitful predisposing cause of aberrant behaviour.

When we analyse the forms which the delinquency assumes at different ages, we find still further evidence of this psychological background.

Thus under the age of 10 the possession of a bicycle or watch makes a very definite appeal to a child's desire for some possession which exalts it above its fellows. At this age the child has not acquired the capacity to form more generalised judgments, and money has not yet acquired that commercial value which it has for older children. Flash lamps and bicycle lamps give satisfaction to the spirit of adventure and are favourite articles. Later on, these and money acquire a new value as objects of utility. The spirit of adventure, and the beginnings of the gang-spirit shew themselves in the frequency of "breaking and entering enclosed premises" in the later years of school life. This gang spirit is in reality but the first stirring of those instinctive tendencies towards group action which form the basis of our social life, but which need to be moulded into consonance with the well-being of the community of which we are members.

Maladjustment and mental ill-health show themselves in varied forms ranging from disorders of conduct to such complaints as enuresis, tics, stammering, and various combinations of symptoms. The adjustment of such conditions requires a close study of the physical, emotional, and intellectual make-up of the individual child, and this obviously implies an evaluation of the family and school environment in each case. To meet these conditions, there has evolved a form of Clinic which is characterised by the association of a psychiatrist, a psychologist, and a specially trained social worker, who co-operate in the investigation of the various factors concerned.

With the assistance of the data furnished by this team-work, and by others who are concerned with the child, such as school teachers, a synthetic approach to the problem is arrived at and a line of treatment set going. Treatment is varied, and includes talks to the parents, the encouragement and provision of opportunities to the child, adjustment of school difficulties, and co-operation with any social agencies concerned with the welfare and happiness of the school population.

The establishment of an adequately staffed Child Guidance Clinic in the course of the coming year will prove a very real step towards the solution of the problem of the difficult child. The need for child guidance was stressed in the report of the Chief Medical Officer of the Board of Education for 1930 in the following words :—

> "We have now reached a further stage in the evolution of the School Medical Service. There is *mental health* (as distinct from specific mental defect) to take account of, as well as physical, and we come to a point when we find we cannot divorce the one from the other. It is the whole child of which account must be taken."

And again :

"In the work of the School Medical Service we must recognise that conditions which lead to the reformatory, the prison, the hospital, or the asylum, may have been developing during school life, and that accordingly manifestations of persistent abnormality in behaviour or of 'mal-adjustment' in children demands the close attention of the School Medical Officer."

IMMUNISATION AGAINST DIPHTHERIA.

Very satisfactory progress has been made in the immunisation of the child population, and 6,000 children were immunised in the schools, and 301 in the Infant Welfare Clinics. It is hoped that during the present year by a re-arrangement of the work, a much larger number will be protected. It is a significant fact that since the introduction of immunisation in connection with the schools, the average number of deaths from Diphtheria per annum has dropped to 35 as compared with an average of 64 per annum in the period preceding. During the last year 36 deaths between 5 and 14 were notified. It is estimated that some 25,000 children are now protected and there is evidence of a real anxiety on the part of parents to safeguard their children in this way. At the present time about 1,000 children are being immunised weekly in the schools.

As the chief danger is for children under 10, and in order to get round all the schools within a reasonable time, attention is being centred upon the Infant and Junior Schools, though older children are treated at the same time if the parent makes application. Owing to the delay which would be necessary for a preliminary Schick test, and the discordant results which the Schick test sometimes gives, this has been abandoned. It has been found that a primary Schick negative reactor may shew a positive result when tested at a later date, and it is, therefore, not absolutely safe to class a primary Schick negative reactor as immune, and thereby to give a sense of security which is not in reality sound. The only means of dealing with a disease the infecting organism of which is so widely distributed throughout the population, is to secure such a degree of general immunity in the section of the population at risk that the infection cannot assume an epidemic character. The incidence of Diphtheria in the Teaching Staff has been very small during the year.

TUBERCULOSIS.

Dr. Dixon, Tuberculosis Officer, gives the following report in reference to the incidence of Tuberculosis in children :—

"During the year 1931, the number of children dealt with at Yardley Road Sanatorium was 228. Of these 124 were males and 104 were females.

Out of the 228 there were 113 who were admitted primarily for observation, 78 of which were discharged with no definite signs of Tuberculosis and 35 remained for treatment.

Of the 150 who received treatment 57 were in Group I, 38 in Group II, 5 were in Group III, and 50 were in Group IV, i.e., 50 were surgical cases. The surgical cases consisted of diseases of the bones and joints, abdominal tuberculosis, peripheral glands, etc., and the majority of these children were treated in the artificial light clinic with excellent results.

Classification of Groups.

Group I.—Cases with slight constitutional disturbance, if any; e.g., there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration: gastro-intestinal disturbance or emaciation, if present, should not be excessive.
The obvious physical signs should be of very limited extent as follows: Either present in one lobe only and, in the case of an apical lesion of one upper lobe, not extending below the second rib in front or not exceeding an equivalent area in any one lobe; or where these physical signs are present in more than one lobe, they should be limited to the apices of the upper lobes, and should not extend below the clavicle and the spine of the scapula. No complication (tuberculous or other) of prognostic gravity should be present. A small area of dry pleurisy should not exclude a case from this group.

Group III.—Cases with profound systemic disturbance or constitutional deterioration, with marked impairment of function, either local or general, and with little or no prospect of recovery. All cases with grave complications (e.g., diabetes, tuberculosis of intestine, etc.), whether those complications are tuberculous or not, should be classified in this group.

Group II.—All cases which cannot be placed in Groups I and III.

Group IV.—Patients suffering from non-pulmonary tuberculosis include:—

(1) Tuberculosis of bones and joints.
(2) Abdominal tuberculosis (i.e., tuberculosis of peritoneum, intestines or mesenteric glands).
(3) Tuberculosis of other organs.
(4) Tuberculosis of peripheral glands.

THE COTTAGE HOMES.

Apart from outbreaks of infectious disease, the health of the children has been good. Periodic outbreaks of measles, whooping cough, chickenpox and mumps, are inevitable in communities of susceptible children, despite the greatest care exercised to prevent the introduction of a case or a person likely to carry the infection. Immunisation against diphtheria has been carried out in each of the Homes during the year, and the percentage of immune children is at the present high. Care is taken by a systematic examination of the children before admission for any signs which might indicate the presence of the diphtheria bacillus, but in a community in which there is a constant introduction of newcomers, it is important that immunisation of the susceptible children should be carried out yearly. The conditions under which the children

live in the various houses within the Homes offer unusually favourable circumstances for the use of serum to prevent or attenuate an attack of measles should a case occur, and arrangements have been made with the Health Department to meet this contingency. The policy of examining every child, prior to admission, under ultra-violet light for the detection of early cases of ringworm has proved successful, and no case has been introduced into the Homes since this was put into operation. When once introduced, ringworm tends to become disseminated and is difficult to eradicate, but with the exception of one case the infection has now been stamped out.

The policy of boarding-out as many suitable children as possible has reduced the total number of resident children. Such children are individually examined every six months, and if boarded out in the City, any physical or dental defects which may be found may be treated at one of the School Clinics. The number of boarded-out children at the present time is about three hundred. During the year I have made 379 examinations.

Especial care is devoted to the teeth of the children. This care, and the result of the special investigation under the Medical Research Council, is reflected in the excellent condition of the teeth detailed in the reports of the dental officers.

Erdington.

Mr. Norman Haines, L.D.S., reports:—

"The condition of the teeth is excellent, only 26 permanent teeth being extracted, a great number of which were for children on admittance to the Homes in cases where the teeth had been neglected; a few were extracted for regulation purposes.

The children are advised to look after their teeth, and I have no trouble in getting the necessary work done."

Marston Green.

Mr. Reginald Knight, L.D.S., reports:—

"During the year every child has been examined by me, and special arrangements have been made to see (and treat when necessary) each new arrival at the first opportunity.

The standard of efficiency from a dental standpoint has been maintained. The teeth of the children are very good. Many cases which I noted at the last annual inspection had greatly improved as a result of the extra calcium administered during the investigation of the Medical Research Council's Committee through the past few years. This applies to the very young children from the first to the second dentition.

The treatment mostly consisted of fillings and conservative work; extractions were very few in comparison with other work.

It has been my endeavour to see all children prior to their leaving the Homes.

During the Autumn, I shall try to arrange for one of the Dental Board Exhibitions and special lectures to be given at the Homes."

Shenley Fields.

Mr. J. Baker, L.D.S., reports :—

"During the year I treated 104 children varying from 4—16 years. A high standard of oral cleanliness is maintained at this institution and, in consequence, extensive conservative work and multiple extractions were not required except in the case of a few of the newly-admitted children.

Treatment consisted of extractions under general (N_2O) and local anaesthesia, whilst copper amalgam fillings were used where required for permanent molars and also in a few temporary teeth.

After extractions, the teeth of each child are placed in a separate test-tube containing spirit, labelled and sent to the Medical Research Council for microscopical examination."

The research carried out by Mrs. Mellanby under the auspices of the Medical Research Council, which published their report during the year, has now come to an end, but some 250 children, who were the subject of the investigation, are still being kept under dental observation.

CONCLUSION.

In bringing this Report to a conclusion, it is a pleasure to make reference once again to the unstinted help which is always forthcoming from Teachers, School Attendance Officers, Private Practitioners, Juvenile Welfare After-Care Workers and others, upon whose co-operation the smooth working of the Medical Department depends so much.

SPECIAL SCHOOLS SUB-COMMITTEE, 1930-31.

Councillor Miss C. Martineau, J.P. (*Chairman*).
(Died January, 1932).

Mr. Councillor R. H. Hume (*Ex-Officio*).
Mr. Alderman A. R. Jephcott, J.P. (Died March, 1932).
Mr. Alderman T. Quinney, J.P.
Councillor Dr. W. B. Featherstone, J.P.
Mr. Councillor H. Johnson.
Mr. Councillor W. J. Loxley, J.P.
Councillor Miss Sant.
Mr. Councillor Spalton.
Councillor Mrs. Wills.
Miss E. M. Barling, M.B.E.
Mr. A. Clendon, M.A.
Miss J. David.
Mr. E. F. Freeland.
Mrs. Barrow Cadbury, J.P.

CHIEF EDUCATION OFFICER:
P. D. Innes, M.A., D.Sc.

CLERK TO SUB-COMMITTEE:
H. B. Newsome.

INSPECTOR OF RESIDENTIAL AND SPECIAL SCHOOLS:
Elizabeth L. S. Ross, M.A., B.Ed.

SPECIAL SCHOOLS MEDICAL OFFICER:
James M. Smellie, M.D., M.R.C.P.

SPECIAL SCHOOLS ASSISTANT MEDICAL OFFICER:
Ernest Bulmer, M.D., M.R.C.P.

OPHTHALMIC SURGEON:
H. W. Archer Hall, D.O.

ORTHOPAEDIC SURGEON:
F. Wilson Stuart, M.D., Ch.M.

VISITING MEDICAL OFFICERS:
Baskerville School: Fredk. B. Winfield, O.B.E., M.R.C.S., M.R.C.P.
Cropwood School: Mitchell I. Dick, M.B., Ch.B.

SPECIAL SCHOOLS.

ANNUAL REPORT OF THE SPECIAL SCHOOLS MEDICAL OFFICER, JAMES M. SMELLIE, M.D., M.R.C.P., FOR THE YEAR ENDED 31st DECEMBER, 1931.

MEDICAL INSPECTION AND TREATMENT.

The general arrangements for routine Medical Inspections and re-inspections of children attending the Special Schools have been continued unchanged during the year 1931, except that the numbers dealt with have been rather less than has been the case during the past few years. This diminution has been due partly to the large number of Admission Examinations necessary in connection with the opening of the new Day Open-Air School at Marsh Hill, and partly to my own illness in the Autumn, when I was absent for a time.

The total number of children examined during the year was 597.

As is customary this figure relates *only* to general medical examination of the Blind and Partially-Blind, Deaf, Mentally-Defective, and those Physically-Defective children who are in attendance at Day Schools. It does not include the children seen at the frequent visits to the Baskerville School and the Open-Air Schools.

Full use continues to be made of the School Clinics for such treatment as is available there, and particularly with regard to defects of vision and for tonsil and adenoid operations, whilst exceptional cases attend for investigation and treatment by Dr. Bulmer or myself at the Out-patient departments of the General or Children's Hospitals.

SCHOOLS FOR THE MENTALLY DEFECTIVE.

ADMISSION EXAMINATIONS.

The following return shows the number of children who were examined with a view to admission to the Special Schools for the Mentally-Defective, and the decisions arrived at :—

Number of children examined	398
Number certified as mentally-defective...	240†
Number to remain at Ordinary Schools	76*
Number certified to attend Open-Air Schools	23
Number temporarily excluded from school attendance	18
Number certifiable as ineducable	38
Number to remain at Open-Air Schools	2
Number to remain at Partially Blind School	1

† Includes 3 for Residential Schools and 11 for " Ascertainment " purposes only.

* Of these 54 were to be seen again later.

PERIODICAL EXAMINATIONS.

Periodical Examinations were held as usual once each term at all the Schools for the Mentally-Defective :—

A summary of the results is given below :—

Children allowed to leave between 14 and 16 years of age for approved employment	86†
Children leaving Special Schools at the age of 16	64†
Children discharged and notified to M.D. Act Committee as unable to derive further benefit from Special School instruction ...	52
Child transferred to P.B. School	1
Child transferred to Besford Court Residential School	1
Children transferred to Monyhull School	3
Child transferred to Uffculme O.A. School	1
Child transferred to Day P.B. School	1
Child transferred to Baskerville P.D. Residential School	1
Child temporarily excluded from school attendance	1

† All of these children to be reported to the Local M.D. Act Committee for statutory supervision

* Of these, 52 were over the age of 15 years, including 29 who left at the end of the term immediately before they reached the Statutory Leaving age.

ACCOMMODATION FOR MENTALLY-DEFECTIVE CHILDREN.

The shortage of accommodation for mentally-defective children on the Handsworth side of the City has been met by the provision of a new school planned with open-air class-rooms, in Hamilton Road. This school, which provides accommodation for 156 children, senior boys and junior mixed, was opened in January, 1932.

Following out suggestions made in 1926, it is proposed to carry out, where possible in the schools for the Mentally-Defective, a scheme of re-organisation, making special provision for senior children. Pairs of schools suitably placed geographically will be associated. Each will have junior mixed children, while one will take all the senior boys and the other all the senior girls. The Bristol Street and Sherbourne Road schools were re-organised in 1930, the former as a school for senior girls with a junior mixed department, and the latter, under a Headmaster, as a school for senior boys with junior mixed children. With the opening of the new school at Hamilton Road, opportunity has been taken to re-organise the George Street West School, which now provides for senior girls and junior mixed children.

Slight alterations and extensions at the Gem Street School are contemplated. When these have been effected this school will be re-organised as a school for senior boys and the Burlington Street School as a school for senior girls, both of these schools also taking junior mixed scholars. Additional accommodation is needed at the Burlington Street school to meet the requirements of children residing on the north side of the City, but the proposed extension has had to be postponed in view of the present financial conditions. The erection of a new school in the Saltley district to take the place of the existing Ralph Road Special School, which is held in rented premises, has also been deferred. The need still exists for an additional school for the mentally-defective in the south-eastern area of the City.

WAITING LISTS AT DECEMBER 31st, 1931, OF CHILDREN REPORTED FOR EXAMINATION WITH A VIEW TO THEIR ADMISSION TO M.D. SCHOOLS.

Bristol Street School	28
Burlington Street School	91
Fashoda Road School	15
Gem Street School	146
George Street West School	19
Hamilton Road School	56
Little Green Lane School...	81
Ralph Road School	27
Sherbourne Road School	46
	509

During the year 1931, a total of 358 children (202 boys and 156 girls) were reported for examination with reference to possible admission to schools for the mentally defective. The ages of these children at the time of reporting were as follows :—

Age	5 and under	6	=	8
,,	6	,, 7	=	14
,,	7	,, 8	=	60
,,	8	,, 9	=	93
,,	9	,, 10	=	54
,,	10	,, 11	=	38
,,	11	,, 12	=	58
,,	12	,, 13	=	25
,,	13	,, 14	=	8

The transference of children to Senior Departments has brought to light a considerable number of retarded children aged 11+, as shewn above. It is hoped that in the future it will be more and more possible to discover the great majority of these children by the time they reach the age of 7 or 8.

Of the 358 reported it has been possible to give 320 a preliminary individual mental test. The children may be grouped as follows, according to their mental ratios (or intelligence quotients) :—

Below	40		=	5
Between	40	and under 50	=	18
,,	50	,, 60	=	71
,,	60	,, 70	=	146
,,	70	,, 80	=	58
,,	80	,, 90	=	17
,,	90	,, 100	=	3
Over	100		=	2

It has been noted that in the case of a considerable number of schools in the City, no child has been put forward during the last three years for examination regarding possible admission to schools for the mentally defective. Head teachers would help greatly by reporting all such retarded children at as early an age as possible, irrespective of the immediate possibility of their admission to a Special School.

Of the 358 children reported during the year 149 have been dealt with at Statutory Examinations with the following results :—

Certified to attend M.D. Special Schools	118
No action	2
For re-examination after further trial in Elementary Schools	12
Certified for admission to O.A. Schools	10
Certified for admission to P.D. Schools	7
	149

SCHOOLS FOR THE PHYSICALLY-DEFECTIVE.

DAY SCHOOLS—ADMISSION EXAMINATIONS.

The following table shows the examinations of children held during the year with a view to admission to the Day Schools for the Physically-Defective :—

Number of children examined	75
Number certified for admission	54
Number able to remain at ordinary schools	6
Number temporarily unfit for school attendance ...	12
Number permanently exclnded from further attendance at school	1
Number to be seen with a view to admission to M.D. Schools	2

PERIODICAL EXAMINATIONS.

A summary is given below of the decisions made at the Periodical Examinations held once each term at these schools :—

Children fit to leave for work between 14 and 16 years of age	10
Children transferred to Ordinary Schools	3
Child transferred to Uffculme O.A. School	1
Child transferred to Monyhull (M.D.) School	1
Children transferred to Day (M.D.) Schools	2
Child transferred to Baskerville Residential School ...	1
Children excluded as temporarily unfit to attend school	5
Children excluded permanently from School attendance owing to physical incapacity	2
Child to have private tuition	1
Children certified as mentally-defective for "Ascertainment" purposes only	4

It is recognised that the George Street West and Little Green Lane P. D. School buildings are far from suitable for use as schools for cripples when considered in the light of modern knowledge and requirements. Both should be replaced by more spacious open-air schools, further away from the smoky atmosphere of central Birmingham. With the migration of the population outward to the new housing areas it is increasingly difficult to arrange for the transport of many of the crippled children to the existing schools, and it may be necessary before long to consider the question of the appointment of visiting teachers.

ORTHOPAEDIC INSPECTION AND TREATMENT.

Mr. F. Wilson Stuart, M.D., Ch.M., has furnished the following report on his work as Orthopaedic Surgeon in connection with the two Day Schools for Physically-Defective children :—

"During the year 1931 ten inspections have been held, seven at Little Green Lane and three at George Street West.

One hundred and twenty-two children, including re-examinations, were examined and treatment prescribed, varied or stopped where necessary.

A small gymnasium was built and equipped at Little Green Lane and is serving a useful purpose; cases formerly spending much educational time in going to the out-patient department of the Royal Cripples Hospital at 80, Broad Street, can be dealt with in school, and, therefore, treated more frequently without the loss of education.

Among many good results one disappointing feature stands out more and more as time passes; it is the immense difficulty in producing a satisfactory result in cases where there is even a slight degree of mental deficiency; many of these children fail to respond to the stimulus and interest which physical exercise and re-education usually arouse."

A Masseuse is now engaged at the Little Green Lane (P. D.) School on five sessions per week, while the services of the Masseuse at the George Street West (P. D.) School have been extended from two to three sessions weekly.

BASKERVILLE RESIDENTIAL SCHOOL (Accommodation—90).
(Boys, 42; Girls, 48).

As explained in previous reports, the children in residence at this School are almost entirely those who have suffered from acute juvenile rheumatism in one or other of its manifestations. The importance of after-care for rheumatic children is now generally recognised to be of considerable consequence if the incidence of heart disease among the general population is to be lessened, and every year sees more and more Authorities taking measures with this object in view. The results that are being obtained are increasingly encouraging. The close medical supervision that these children can obtain in a residental institution has the great advantage that recurrences of rheumatism can be detected early and the appropriate treatment prescribed.

Unfortunately, the value of the work at Baskerville this year has been disturbed by the occurrence of sporadic cases of Scarlet Fever. The infection has persisted in spite of careful disinfection and fumigation, etc., and altogether about 17 cases have arisen, including two members of the staff—the Head Mistress and an attendant. All have been of a mild type, there has been no fatality and it is interesting to record that this infection has not produced any exacerbation or recurrence of the rheumatic infection.

During the year 68 children were admitted, and 71 left. The causes of leaving were as shown below:—

Children fit to leave between the ages of 14 and 16 years	13
Children transferred to Ordinary Schools	29
Children withdrawn by parents	8
Children removed to Hospital	4
Children discharged as unsuitable	3
Child withdrawn by parents on religious grounds (Jew)	1
Child transferred to Woodlands Hospital School	1
Children transferred to Day (P.D.) Schools	9
Children transferred to Cropwood O.A. School	3

The average length of stay at the school of the children referred to above was 15 months.

The usual Admission Examinations were held in connection with this school, when 70 children were seen, 66 being certified as suitable for admission; one was to remain at an ordinary Elementary School; one to remain at Uffculme Day (O. A.) School; one was exempted from attendance at any school for 12 months, and one was over 14 years of age and consequently no action was taken.

OPEN-AIR SCHOOLS.

UFFCULME DAY SCHOOL (Accommodation, 120).

The number of admissions to this School during the year was 74 and the number of children who left was 77.

The following were the causes for leaving :—

Children who improved sufficiently to be transferred to Ordinary Schools	27
Children who left at 14 years of age, whose physical condition was satisfactory...	27
Children transferred to Cropwood Residential Open-Air School	7
Children transferred to Marsh Hill Day Open-Air School ...	7
Children who left owing to distance of home from School ...	3
Children who left owing to parents leaving district	2
Child transferred to a School for the M.D.	1
Child transferred to a Reformatory School	1
Child withdrawn by parent	1
Child discharged as unsuitable	1

The customary Admission Examinations were held, when 97 children were seen. Of these 91 were certified for admission to Uffculme, 3 were considered suitable to remain at Elementary Schools; 2 at Day M. D. Schools, and 1 at a Day P. D. School.

The number of children sleeping at Uffculme during the Summer months was again increased this year. From May 4th to September 30th forty boys slept at school from Monday to Friday each week. During the evenings, games were organised by a trained teacher who was assisted by an attendant for bathing and other domestic duties.

The boys, in charge of a teacher and an attendant slept under a shed with three open sides.

In the selection of cases priority was given for reasons of long distance and to those children coming from poor or over-crowded homes.

The boys were happy and contented and showed marked improvement. The body weight in all these cases increased at a greater rate than had been the case over a similar period prior to sleeping in. Three, who came from very poor neglectful homes, did not settle down, were very frequently absent and made practically no additional progress.

Additional use of the grounds was also made in connection with the teaching of gardening to boys from Sherbourne Road School.

SPORTS MEETING.

During the year a Sports Association was formed in connection with the Council Special Schools and the first Athletic Meeting—which was taken part in by scholars drawn from all the M. D. Schools and the Cropwood and Uffculme O. A. Schools—was held on 3rd July in the Uffculme grounds.

MARSH HILL DAY SCHOOL (Accommodation, 200).

This new School provides accommodation for 200 boys and girls living on the north side of the City. The first scholars were admitted on April 13th, 1931, and the School was officially opened by Sir George Newman, K.C.B., M.D., Chief Medical Officer of the Board of Education, on 24th June. In formally opening the School, Sir George laid stress on what he referred to as the five cardinal points on the way to health which were provided in Open-Air Schools—fresh air, food, exercise, cleanliness, and rest. The value of these, I think, cannot be over-emphasised. Especially is this the case with younger children, from poor and overcrowded homes, who suffer from anaemia, and general debility. These, by the care provided may be saved from a condition of chronic ill-health and enabled to become healthy citizens.

The number of admissions to this School from April to December was 238 and the number of children who left was 42.

The following were the causes for leaving :—

Children who improved sufficiently to be transferred to Ordinary Schools	14
Children who left at 14 years of age	4
Children transferred to Uffculme O.A. School	2
Child transferred to a Secondary School	1
Children transferred to Schools for the M.D.	5
Child transferred to Yardley Sanatorium	1
Children discharged as unsuitable	3
Children who left owing to distance from home, after a few days' attendance	11
Child who left owing to parents' removal from district ...	1

Admission Examinations were held at which 274 children were examined. Of these 258 were certified as suitable for admission ; 15 were considered fit to remain at ordinary Elementary Schools ; and 1 remained at a Day M. D. School.

CROPWOOD RESIDENTIAL SCHOOL (Accommodation 80)

As pointed out in previous years, it is only practicable to deal with children of one sex during the same period at this School. Accordingly the School has been occupied by boys and girls alternately at two yearly intervals, the last biennial change from boys to girls taking place at Easter, 1930. It will, perhaps, therefore, be of more value if I give a summary of the total number of children dealt with from Easter, 1930, to December, 1931, rather than to adhere strictly to the year 1931, which this report is supposed to cover. Since April, 1930, when girls went into residence, 144 have been admitted, and 68 have left. The table below summarises the leavers :—

Children who improved sufficiently to be transferred to Ordinary Schools	44
Children who left at 14 years of age, or over, whose physical condition was satisfactory	13
Children withdrawn by parents	7
Children whose places were filled during illness	2
Child whose parents left Birmingham	1
Child who died during school holidays	1

The average time spent by children at the Cropwood School was 10½ months.

Admission Examinations were held at which 70 children were seen. Of these 66 were certified for admission and four were considered suitable to remain at ordinary Elementary Schools.

A new Residential School on the Cropwood Estate is now in course of erection, and it is expected that it will be ready for occupation by Easter 1933. The School will provide for 120 boys, leaving the existing Cropwood School exclusively for the use of girls. No further biennial change is therefore contemplated. With this additional accommodation, good facilities will be afforded by the City for delicate children of both sexes who need Residential Open-Air School treatment or who reside at too great a distance to attend either of the two Day Open-Air Schools.

SCHOOLS FOR THE PARTIALLY-BLIND.

Dr. H. W. Archer Hall, D.O. (Oxon), has supplied the following report on his work in connection with the three Day Schools for Partially-Sighted children at Edgbaston, Moseley Road, and Whitehead Road :—

"During 1931 I inspected the schools and children at each of the part-sighted institutions on three or four occasions.

The progressively good results obtained by these schools have been well maintained and the average progression of short-sight is very slight indeed.

Some newly printed books in quite large type have been added with advantages to the equipment of the Schools.

As in previous years I arranged at each visit for certain children to be examined by me at special sessions at the Great Charles Street School Clinic.

In this way 102 examinations were made in the year.

In my work on children attending Sighted Schools, I found it necessary to certify 38 children for education at Part-Sighted Schools—while I was able to return 9 children to Sighted Schools—5 from Whitehead Road and 4 from Moseley Road School.

Particulars are furnished below with regard to the children who were admitted to or who left the three Schools for the Partially-Sighted during the year under review :—

	Edgbaston.	Moseley Road.	Whitehead Road.
Number admitted during year	8	18	8
Number who left during year	3	14	11
Number transferred to Ordinary Schools ...	—	4	5
Number who left for work at 14 years ...	1	4	3
Number transferred to Edgbaston P.B. School	—	6	—
Number transferred to Summer Hill Homes	—	—	2
Number who left owing to change of address	—	—	1
Number transferred for technical training at Edgbaston Institution at 16	2	—	—

SUMMER SCHOOL FOR DEFECTIVE CHILDREN.

The Summer School for Special School children was again held at Glan-y-don, Towyn, during the past season. Eight groups of children, numbering in all 192 went into residence, each group remaining for two weeks. The first arrived on April 29th and the last group left on September 30th.

The domestic arrangements were exactly as last year, and the School was carried through very successfully, in spite of an undue proportion of very bad weather. It happened that all the groups consisted of boys, most of whom had very hearty appetites. Only one case of sickness occurred (tuberculous glands) requiring medical attention. As will be seen from the table which follows, the weight records are excellent; 68 boys gained 4lbs. or more in the two weeks, three of them more than 7lbs.

The schools taking part were selected on the same basis as in previous years. Five groups were from Schools for the Mentally-Defective, two from the Cripple Schools, and one from a Deaf School. The Partially Blind Schools now take part in alternate years, their numbers being so small.

This year more attention was paid to the neighbouring farms and the work carried on there. Several of the groups did quite long walks of as much as eight miles, while the deaf boys climbed over 1,000 feet and had a glorious view of the course of the Dysynni.

As I have mentioned before, the locality is ideal for School Journey purposes for Birmingham children, and the possibility of having permanent and better accommodation there would be welcomed.

CITY OF BIRMINGHAM EDUCATION COMMITTEE, SPECIAL SCHOOLS.

Weight Records of Children who went to Towyn Summer School, 1931.

Date.	School.	Type.	Sex.	Number who gained weight.	Average gain.	Number who lost weight.	Average loss.	No change in weight.	Number who gained over 4 lbs.
Apr. 29—May 13	Gem St.	M.D.	Boys	20	1lb. 15ozs.	4	12ozs.	—	—
May 13—May 27	Sherbourne Rd.	,,	,,	24	3lb. 10ozs.	—	—	—	11
May 27—June 10	Little Gn. Lane	P.D.	,,	23	3lb. 1oz.	—	—	1	6
June 10—June 24	Burlington St.	M.D.	,,	24	4lb. 3oz.	—	—	—	13
June 24—July 8	George St. West	P.D.	,,	24	4lb. 1oz.	—	—	—	14
July 8—July 22	Little Gn. Lane	M.D.	,,	24	4lb.	—	—	—	11
Sept. 2—Sept. 16	Ralph Rd.	,,	,,	24	3lb. 1oz.	—	—	—	3
Sept. 16—Sept. 30	Gem St.	Deaf	,,	24	3lb. 14oz.	—		—	10

Total who gained 4 lbs. and over = 68

CITY OF BIRMINGHAM.

Education Committee.

Appendix to Annual Report

. . of . .

School Medical Officer

for the year ended 31*st December*, 1931.

OFFICIAL TABLES.

Elementary Schools.

TABLE I.—RETURN OF MEDICAL INSPECTIONS.

A. ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections :	
Entrants	16,237
Intermediates	13,879
Leavers	11,078
Total	41,194
No. of other Routine Inspections	—

B. OTHER INSPECTIONS.

Number of Special Inspections	37,071
Number of Re-inspections	44,099
Total	81,170

TABLE II.

A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31ST DECEMBER, 1931.

Defect or Disease.		Routine Inspections. No. of Defects.		Special Inspections. No. of Defects.	
		Requiring treatment.	Requiring to be kept under observation, but *not* requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but *not* requiring treatment.
(1)		(2)	(3)	(4)	(5)
	Malnutrition	333	387	462	11
	Uncleanliness	98	684	406	215
	(See Table IV., Group V.).				
Skin	Ringworm : Scalp	7	2	191	2
	Ringworm : Body	8	—	233	2
	Scabies	44	4	449	3
	Impetigo	228	5	3,649	4
	Other Diseases (non-Tuberculous)	428	28	4,078	9
Eye	Blepharitis	177	6	445	3
	Conjunctivitis	78	22	678	—
	Keratitis	14	1	83	—
	Corneal Opacities	8	6	20	—
	Defective Vision (excluding Squint)	2,082	643	3,040	54
	Squint	584	207	517	16
	Other Conditions	109	27	515	4
Ear	Defective Hearing	241	16	359	9
	Otitis Media	250	13	937	4
	Other Ear Diseases	140	14	530	1
Nose and Throat	Enlarged Tonsils only	350	929	341	47
	Adenoids only	129	47	77	1
	Enlarged Tonsils and Adenoids	2,589	981	1,514	31
	Other Conditions	404	50	1,891	9
Enlarged Cervical Glands (Non-Tuberculous)		56	213	365	—
Defective Speech		109	32	173	15
Teeth—Dental Diseases		6,443	10	283	1
	(See Table IV., Group IV.)				
Heart and Circulation.	Heart Disease : Organic	136	61	119	14
	Heart Disease : Functional	57	116	45	5
	Anaemia	492	34	462	2
Lungs	Bronchitis	689	100	1,121	7
	Other Non-Tuberculous Diseases	122	19	232	2
Tuberculosis.	Pulmonary : Definite	9	4	26	2
	Pulmonary : Suspected	31	14	94	11
	Non-pulmonary : Glands	8	6	31	3
	Spine	1	2	5	—
	Hip	—	2	3	—
	Other Bones and Joints	1	7	5	2
	Skin	6	—	3	—
	Other Forms	1	4	9	1
Nervous System.	Epilepsy	25	15	68	14
	Chorea	39	15	220	12
	Other Conditions	134	174	62	15
Deformities	Rickets	141	114	23	5
	Spinal Curvature	182	88	52	7
	Other Forms	283	67	195	23
Other Defects and Diseases		964	80	12,468	296

B. NUMBER OF *individual Children* FOUND AT *Routine* MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

Group.	Number of Children.		Percentage of Children found to require treatment.
	Inspected.	Found to require treatment.	
(1)	(2)	(3)	(4)
CODE GROUPS :			
Entrants	16,237	4,393	27.0
Intermediates	13,879	3,762	27.2
Leavers	11,078	2,722	24.6
Total (code groups)	41,194	10,877	26.4
Other routine inspections	—	—	—

TABLE III.—RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls	Total.
Blind (including partially blind).	(*i*) Suitable for training in a School for the totally blind.	At Certified Schools for the Blind	16	19	35
	(*ii*) Suitable for training in a School for the partially blind.	At Certified Schools for the Blind or Partially Blind	77	74	151
		At Public Elementary Schools ...	10	12	22
Deaf (including deaf and dumb and partially deaf).	(*i*) Suitable for training in a School for the totally deaf or deaf and dumb.	At Certified Schools for the Deaf	69	54	123
	(*ii*) Suitable for training in a School for the partially deaf.	At Certified Schools for the Deaf or Partially Deaf ...	10	7	17
Mentally Defective	Feeble-minded.	At Certified Schools for Mentally Defective Children	745	553	1298
		At Public Elementary Schools ...	34	29	63*
		At other Institutions ...	11	11	22
		At no School or Institution	2	—	2*
Epileptics.	Suffering from severe epilepsy.	At Certified Schools for Epileptics	9	7	16
		At no School or Institution	4	2	6
	Suffering from epilepsy which is not severe.	At Public Elementary Schools	60	50	110
Physically Defective	Active pulmonary tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	44	19	63
	Quiescent or arrested pulmonary tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	4	4	8
		At Certified Residential Open Air Schools ...	—	8	8
		At Certified Day Open Air Schools	14	5	19
		At Public Elementary Schools	—	3	3
		At no School or Institution	1	1	2
	Tuberculosis of the peripheral glands.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	2	3	5
	Abdominal tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	8	3	11
		At Certified Day Open Air Schools	1	—	1

* Certified as mentally-defective and awaiting admission to Special Schools. There are, in addition 286 boys and 223 girls who have been reported as probably Mentally-defective, and who await examination.

TABLE III. *Contd.*—RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

			Boys.	Girls.	Total.
Physically Defective	Tuberculosis of bones and joints (not including deformities due to old tuberculosis).	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	72	45	117
		At Public Elementary Schools	4	—	4
		At other Institutions ...	16	16	32
		At no School or Institution	1	2	3
	Tuberculosis of other organs (skin, etc.).	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	—	1	1
		At other Institutions ...	2	1	3
	Delicate Children, *i.e.*, all children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School.	At Certified Residential Cripple Schools	14	18	32
		At Certified Day Cripple Schools	10	7	17
		At Certified Residential Open Air Schools ...	—	71	71
		At Certified Day Open Air Schools	199	115	314†
		At Public Elementary Schools	49	69	118
		At other Institutions ...	6	5	11
		At no School or Institution	3	3	6
	Crippled Children (other than those with active tuberculous disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life.	At Certified Hospital Schools	16	12	28
		At Certified Residential Cripple Schools	1	—	1
		At Certified Day Cripple Schools	88	85	173
		At Certified Day Open Air Schools	—	1	1
		At Public Elementary Schools	156(16)	120(14)	276 (30)‡
		At other Institutions ...	1	6	7
		At no School or Institution	8 (8)	8 (8)	16 (16)‡
	Children with heart disease, *i.e.*, children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public elementary school.	At Certified Residential Cripple Schools	27	29	56
		At Certified Day Cripple Schools	13	17	30
		At Certified Residential Open Air Schools ...	—	2	2
		At Certified Day Open Air Schools	1	1	2
		At Public Elementary Schools ...	7	19	26
		At no School or Institution	2	2	4

† In addition there are 102 boys and 81 girls who have been reported for examination with a view to admission to Open Air Schools.

‡The figures in brackets indicates the number of these children who should be receiving Special School education.

TABLE IV.—RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31ST DECEMBER, 1931.

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Group V.).

Disease or Defect	Number of Defects treated, or under treatment during the year.		
	Under the Authority's Scheme.	Otherwise.	Total.
(1)	(2)	(3)	(4)
Skin—			
Ringworm-Scalp	154	14	168
Ringworm-Body	199	11	210
Scabies	271	13	284
Impetigo	2,976	43	3,019
Other skin disease	3,380	356	3,736
Minor Eye Defects (External and other, but excluding cases falling in Group II.).	1,490	58	1,548
Minor Ear Defects	1,816	101	1,917
Miscellaneous (*e.g.*, minor injuries, bruises, sores, chilblains, etc.).	6,722	855	7,577
Total	17,008	1,451	18,459

TABLE IV. (*Contd.*)

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).

Defect or Disease.	Number of defects dealt with			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital, apart from the Authority's Scheme.	Otherwise.	Total.
(1)	(2)	(3)	(4)	(5)
Errors of Refraction (including Squint but excluding operations for Squint).	3,533	312	24	3,869
Other Defect or Disease of the eyes (excluding those recorded in Group I.).	48	8	—	56
Total	3,581	320	24	3,925

Total number of children for whom spectacles were prescribed

(*a*) Under the Authority's Scheme 2,958

(*b*) Otherwise 327

Total number of children who obtained or received spectacles

(*a*) Under the Authority's Scheme 2,867

(*b*) Otherwise 305

Group III.—Treatment of Defects of Nose and Throat.

Number of Defects.

Received Operative Treatment.			Received other forms of Treatment.	Total number treated.
Under the Authority's Scheme, in Clinic or Hospital.	By Private Practitioner or Hospital, apart from the Authority's Scheme.	Total.		
(1)	(2)	(3)	(4)	(5)
1,448	554	2,002	1,340	3,342

TABLE IV. (*Contd.*)

Group IV.—Dental Defects.

(1) Number of Children who were :—

(*a*) Inspected by the Dentist :

Aged :

Routine Age Groups	5	8,968	
	6	9,262	
	7	9,929	
	8	11,077	
	9	11,348	
	10	12,564	Total 92,059
	11	12,191	
	12	8,158	
	13	7,394	
	14	1,168	
Specials			91
		Grand Total	92,150

(*b*) Found to require treatment 69,143

(*c*) Actually treated 36,322

(*d*) Re-treated during the year as the result of periodical examination 1,299

(2) Half-days devoted to { Inspection ..... 460 / Treatment ..... 3,439 } Total 3,899

(3) Attendances made by children for treatment 44,174

(4) Fillings { Permanent teeth 17,296 / Temporary teeth 4,096 } Total 21,392

(5) Extractions { Permanent teeth 15,904 / Temporary teeth 72,669 } Total 88,573

(6) Administrations of general anaesthetics for extractions 15,051

(7) Other operations { Permanent teeth 2,431 / Temporary teeth 5,786 } Total 8,217

Group V.—Uncleanliness and verminous conditions.

(i.) Average number of visits per school made during the year by the School Nurses.....7.43.

(ii.) Total number of examinations of children in the Schools by School Nurses.....314,033

(iii.) Number of individual children found unclean.....14,832.

(iv.) Number of children cleansed under arrangements made by the Local Education Authority.....189.

(v.) Number of cases in which legal proceedings were taken :

(*a*) Under the Education Act, 1921.....Nil.

(*b*) Under the School Attendance Bye-laws .....61.

SECONDARY SCHOOLS

AND

OTHER INSTITUTIONS FOR HIGHER EDUCATION

TABLE I.—RETURN OF MEDICAL INSPECTIONS

NUMBER OF CHILDREN INSPECTED 1ST JANUARY, 1931, TO 31ST DECEMBER, 1931

Number of Routine Medical Inspections	6,155
Number of Special Medical Inspections	103
Number of Re-inspections	578
Total	6,836
Number of Individual Children found to require Treatment	1,383
Percentage of Children found to require Treatment	22.4

TABLE II.

A. RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31ST DECEMBER, 1931.

Defect or Disease.	Routine Inspections. No. of Defects. Requiring treatment.	Routine Inspections. No. of Defects. Requiring to be kept under observation, but *not* requiring treatment.	Special Inspections. No. of Defects. Requiring treatment.	Special Inspections. No. of Defects. Requiring to be kept under observation, but *not* requiring treatment.
(1)	(2)	(3)	(4)	(5)
Malnutrition	17	16	1	—
Uncleanliness	1	—	—	—
Skin — Ringworm : Scalp	1	—	—	—
Skin — Ringworm : Body	—	—	—	—
Skin — Scabies	1	—	1	—
Skin — Impetigo	1	—	3	—
Skin — Other Diseases (non-Tuberculous)	56	14	2	—
Eye — Blepharitis	22	1	1	—
Eye — Conjunctivitis	9	3	—	—
Eye — Keratitis	—	—	—	—
Eye — Corneal Opacities	1	—	—	—
Eye — Defective Vision (excluding Squint)	545	455	15	7
Eye — Squint	9	12	—	—
Eye — Other Conditions	15	4	—	1
Ear — Defective Hearing	8	4	1	—
Ear — Otitis Media	14	5	3	—
Ear — Other Ear Diseases	12	3	1	—
Nose and Throat — Enlarged Tonsils only	53	87	5	—
Nose and Throat — Adenoids only	3	3	—	—
Nose and Throat — Enlarged Tonsils and Adenoids	83	105	4	1
Nose and Throat — Other Conditions	62	8	—	—
Enlarged Cervical Glands (Non-Tuberculous)	1	9	—	—
Defective Speech	20	1	—	—
Teeth—Dental Diseases	684	2	7	—
Heart and Circulation — Heart Disease : Organic	22	16	—	1
Heart and Circulation — Heart Disease : Functional	12	35	2	—
Heart and Circulation — Anaemia	76	15	2	—
Lungs — Bronchitis	11	4	4	—
Lungs — Other Non-Tuberculous Diseases	9	5	—	—
Tuberculosis — Pulmonary : Definite	—	—	—	—
Tuberculosis — Pulmonary : Suspected	1	2	1	1
Tuberculosis — Non-pulmonary : Glands	—	1	—	—
Tuberculosis — Spine	1	—	—	—
Tuberculosis — Hip	—	—	—	—
Tuberculosis — Other Bones and Joints	—	—	—	—
Tuberculosis — Skin	1	—	—	—
Tuberculosis — Other Forms	—	—	—	—
Nervous System — Epilepsy	1	—	—	—
Nervous System — Chorea	2	—	—	—
Nervous System — Other Conditions	18	42	4	3
Deformities — Rickets	14	5	—	—
Deformities — Spinal Curvature	75	66	3	—
Deformities — Other Forms	74	34	6	1
Other Defects and Diseases	167	37	26	25