[Report 1962] / School Medical Officer of Health, Birmingham.

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CITY OF BIRMINGHAM EDUCATION COMMITTEE

SCHOOL HEALTH SERVICE

REPORT

of the

PRINCIPAL SCHOOL MEDICAL OFFICER

E. LESLIE M. MILLAR, M.D., M.Sc., D.P.H.
Medical Officer of Health and Principal School Medical Officer

HAROLD M. COHEN, C.B.E., M.D., D.P.H.
Senior School Medical Officer

FOR THE YEAR ENDED 31st DECEMBER, 1962

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FOR THE YEAR ENDED 31st DECEMBER, 1962

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(Chairman of the Education Committee)

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(Chairman)

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PRINCIPAL SCHOOL MEDICAL OFFICER

E. Leslie M. Millar, M.D., M.Sc., D.P.H.

DEPUTY PRINCIPAL SCHOOL MEDICAL OFFICER

William Nicol, M.B., Ch.B., D.P.H.

SENIOR SCHOOL MEDICAL OFFICER

Harold M. Cohen, C.B.E., M.D., D.P.H.

DEPUTY SENIOR SCHOOL MEDICAL OFFICER

Maurice E. Lemin, M.B., Ch.B.

ASSISTANT SENIOR SCHOOL MEDICAL OFFICER

Philip R. Kemp, M.B., Ch.B.

SCHOOL MEDICAL OFFICERS

Else A. d'Amian, M.D.(Heidel), L.R.C.P., L.R.C.S.
Joyce B. Mole, M.B., Ch.B., D.C.H.
Beryl W. Marson, M.B., Ch.B., D.C.H.
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Muriel R. Green, M.B., Ch.B.
Rodney C. F. Todman, M.B., Ch.B.
David Williams, M.B., B.Ch., B.A.O., D.A.
June A. Daniell, M.B., Ch.B. (*Appointed* 22.1.62)
John L. Jackson, M.B., Ch.B., D.P.H. (*Appointed* 1.9.62)
Essillt Thomas, M.B., Ch.B. (*Appointed* 1.9.62)

PRINCIPAL SCHOOL DENTAL OFFICER

Donald Glen Thomson, T.D., L.D.S.R.C.S.

SCHOOL DENTAL OFFICERS

HARRY A. COHEN, L.D.S.
HUGH LINN, L.D.S.R.C.S.
CYRIL R. FODEN, L.D.S., (Died 8.3.63)
MARJORIE COOK, L.D.S.
WILLIAM A. BARTON, L.D.S.R.C.S.
DAVID N. MORTIMER, L.D.S.
ERNEST A. K. BAIRD, L.D.S.R.F.P.S.
NEVILLE A. ROBERTS, L.D.S., B.D.S.
GERTRUDE M. LEAHY, L.R.C.P.S.I., L.A.H., L.D.S.
DAVID A. BAKER, L.D.S.
SAMUEL D. NEALE, L.D.S., B.D.S. (*Resigned* 28.9.62)
JUDITH M. WILKINSON, B.D.S., L.D.S. R.C.S.
PATRICIA M. GOODBURN, B.D.S., L.D.S.R.C.S., (*Appointed* 12.3.62)

PART-TIME SCHOOL DENTAL OFFICERS

Who gave service during the year

MARY V. WALTHAM, L.D.S.
MARION GREENSTONE, L.D.S.
EDITH KETTLE, L.D.S.
BRIAN E. TEALL, L.D.S.
PHILLIP A. WITHERS, L.D.S.
JOHN C. MCCARTHY, L.D.S., B.D.S.
FREDA M. RENWICK, B.D.S.
TERENCE A. PODESTA, B.D.S.
PATRICIA E. THOMAS, L.D.S.R.C.S.
KENNETH J. GRIFFITHS, L.D.S.R.C.S.
RASMA J. BREIKS, D.D.D.
JOHN M. DAVIS, B.D.S.
JOHN P. WILLS, B.D.S.
PHILIP G. HERROD, L.D.S.R.C.S.
COLIN B. WALKER, B.D.S.
MARGARET C. ROE, L.D.S.R.C.S., (*Resigned* 30.11.62)
J. CLIFFORD BAKER, L.D.S.
ALFRED N. PLACE, L.D.S., (*Resigned* 28.2.62)
JILL M. SHUFFLEBOTHAM, B.D.S., (*Resigned* 31.7.62)
DAVID JONES, B.D.S., L.D.S.R.C.S.
JAMES C. MURRAY, B.D.S., L.D.S.R.C.S.
ADRIAN MILES, L.D.S.R.C.S.
AUDREY F. BIRCH, B.D.S.
MICHAEL B. NORTON, B.D.S., (*Appointed* 8.1.62)
MARTIN H. WILLS, B.D.S., (*Appointed* 8.1.62)
MARI LEHEPUU, B.D.S., (*Appointed* 18.1.62)
ALISTAN PATON, B.D.S., (*Appointed* 30.4.62)
LEE R. HOLLOWAY, L.D.S.R.C.S., (*Appointed* 16.7.62)
DAVID REES-BODGER, B.D.S., (*Appointed* 3.10.62)
MAURA CHADWIN, B.D.S., (*Appointed* 14.9.62)
WALTER MUNZ, B.D.S., (*Appointed* 4.12.62)

CHILD GUIDANCE SERVICE

Senior Educational Psychologist

W. J. BANNON, M.A., Ed.B.

Senior Consultant Psychiatrist

†*CHARLES L. C. BURNS, M.R.C.S., L.R.C.P., D.P.M.

Consultant Psychiatrist

†*JAMES A. CRAWFORD, L.R.C.P. and S., L.R.F.P. and S., D.P.M.

Educational Psychologists

ENID M. JOHN, M.Sc.
EDNA D. HOWARD, B.A.
JOHANNA E. REINER, Ph.D.(Vienna)
CORINNE V. BENNETT, B.A.
PETER W. MAYHEW, B.A.

Psychiatric Social Workers

DOREEN HOSKING
HELEN M. BARTLETT, B.A. (*Resigned* 31.8.62)
*DOROTHY D. J. LEIGHTON, B.A.
*BARBARA JACOBY, B.A.

Social Workers

*JOYCE CUMMINS (*Appointed* 8.1.62)
ETHEL H. BESWICK (*Appointed* 1.4.62)
*RUTH C. GILLETT (*Appointed* 1.10.62)

Psychotherapist

*Mrs. B. J. Oxford, M.A. (*Resigned* 31.5.62)

Remedial Teachers

Mrs. A. McCulloch, B.A.
Mr. R. S. Harding (*Resigned* 31.8.62)
Mr. K. A. Hack
Mrs. M. J. Newton
Mr. P. Wildblood
Mr. A. L. Hopkins
Mr. H. C. Yoxall
Mr. C. Lapstoff
Mr. D. G. Fudge
Mr. J. J. Seth
Mr. J. H. Evans
Mrs. M. F. Blythe
Miss G. Evans (*Appointed* 1.9.62)
Miss L. R. Briars (*Appointed* 1.9.62)

PART-TIME SPECIALIST OFFICERS

Ophthalmic Section

Herbert W. Archer Hall, M.R.C.S., L.R.C.P., D.O.
Mark Tree, M.B., B.S., F.R.C.S., D.O.M.S.
(*Also Visiting Ophthalmic Surgeon to the Schools for the Partially Sighted*)
John H. Austin, M.B., Ch.B., D.O., D.O.M.S.
Benjamin C. Curwood, O.B.E., M.B., Ch.B., M.R.C.S., L.R.C.P., D.O.M.S.
Lothar Marx, M.B., Ch.B.
Stuart W. K. Norris, B.Comm., M.R.C.S., L.R.C.P., D.O.
Nora Walkinshaw, M.B., B.S.

Orthopaedic Section

Francis G. Allan, M.B., B.S., F.R.C.S., L.R.C.P.
T. S. Donovan, M.B., Ch.B., F.R.C.S.
(*Visiting Orthopaedic Surgeon to the Schools for the Physically Handicapped*)

Ear, Nose and Throat Section

Norman L. Crabtree, F.R.C.S., D.L.O.
(*Also Visiting Aural Surgeon to the Schools for the Deaf*)
Hazley Anderson, B.A., M.R.C.S., L.R.C.P., D.L.O.

Asthma Section

†J. Morrison Smith, M.D., M.R.C.P.E., D.P.H., D.T.M.H., T.D.D.

Visiting Physician to Baskerville School

William C. Smallwood, M.B., Ch.B., F.R.C.P., M.R.C.S.

Orthodontic Section

Norman Norris, B.D.S.
Vera K. Stanley, L.D.S.
Edgar Breakspear, L.D.S., R.C.S., D.Orth.R.C.S.
Dorothy J. Butler, L.D.S., B.D.S., D.P.D., D.Orth.R.C.S. (*Resigned* 31.10.62)

Anaesthetists

Dorothy Taylor Shewring, M.B., Ch.B.
Mary M. Tudor, M.B., Ch.B., B.A.O.
Donald A. L. Crawshaw, M.R.C.S., L.R.C.P.
John Bunting, T.D., M.B., F.R.C.S.I.
Edith M. Stockwin, M.B., Ch.B., D.P.H.
Enid Mackintosh, M.B., B.S.
Norman B. Crisp, M.B., Ch.B.
Frederick D. Griffiths, M.B., Ch.B., M.R.C.S., L.R.C.P.
Gweniver Knight, M.B., Ch.B.
Reginald M. Howson, M.R.C.S., L.R.C.P.
Ephraim McFall, M.B., B.Ch., B.A.O.
Hazem Barrada, M.B., Ch.B., M.R.C.S., L.R.C.P.
Anne S. Fawkes, M.B., Ch.B. (*Appointed* 10.10.62)

PHYSIOTHERAPISTS

Maureen Walls, S.R.N., M.C.S.P.
Madeline M. Williams, M.C.S.P., S.O.N.A.
Florence L. Stoddard, S.R.N., M.C.S.P.
Nora M. Lucas, M.C.S.P.
Geraldine D. Gibbons, M.C.S.P.
Patricia M. Evans, M.C.S.P.
Beryl L. Massey, M.C.S.P.
Dorothy M. Hazelwood, M.C.S.P.
*Pauline M. Collins, M.C.S.P.
*Elizabeth H. Harrison, M.C.S.P. (*Appointed* 8.1.62)
*Joyce Marshall, M.C.S.P. (*Appointed* 10.4.62)

CHIROPODISTS

*Harold Wildbore, M.Ch.S.
*Sylvia R. Brown, M.Ch.S.

REMEDIAL GYMNASTS

Marian J. Parsons
William Collins
John V. Thackerey (*Resigned* 20.10.62)

SENIOR SPEECH THERAPIST

Eileen S. Sprayson, L.C.S.T.

SPEECH THERAPISTS

Jennifer M. Richmond, L.C.S.T.
Renee E. Hughes, L.C.S.T.
Maureen Allen, L.C.S.T. (*Resigned* 31.8.62)
Joan M. Barfield, L.C.S.T. (*Resigned* 31.8.62)
*Janet Lewis, L.C.S.T.
Linda Crees, L.C.S.T. (*Resigned* 7.9.62)
Jennifer D. Jenkinson, L.C.S.T.
*Mavis J. Hampson, L.C.S.T.
*Melicent Bird, L.C.S.T.
*Pamela Norman, L.C.S.T.
(*Appointed* 25.1.62)
Mary Barker, L.C.S.T. (*Appt.* 1.9.62)
*Gwenyth Errey, L.C.S.T.
(*Appointed* 23.11.62)

SENIOR DENTAL TECHNICIAN

Percy Aldred, A.I.B.S.T.

DENTAL TECHNICIAN

Geoffrey B. Burrell

SUPERINTENDENT SCHOOL NURSE

A. Winifred Ashworth, S.R.N., S.C.M., H.V.Cert.

Deputy Superintendent School Nurse

Marian Barrass, S.R.N., S.C.M., H.V.Cert.

SCHOOL NURSING STAFF

School Nurses	67
Nurses in Nursery Schools	5
Nursing Assistants	18

OTHER STAFF

Matron at Martineau House	1
Matron at Wake Green Hostel	1
Nurses in Special Schools :—	
Residential	5
Day	5
State Enrolled Nurses in Special Schools :—	
Residential	3
Day	–
Dental Surgery Assistants	35

*Part-time Officers.

†Appointed by Regional Hospital Board.

School Health Service,
154 Great Charles Street,
Birmingham, 3.
December, 1962.

SUMMARY OF WORK 1962

	Children	*Attendance*
SCHOOL MEDICAL OFFICERS AT SCHOOLS :		
Visits to Schools—2,958		
Routine Inspections—		
Primary and Secondary Schools	40,112	
Grammar Schools	3,505	
Special Schools	697	
Nursery Schools and Classes	1,542	
Selected Cases—		
Special Inspections	4,102	
Re-inspections	5,920	
SCHOOL MEDICAL OFFICERS AT SCHOOL CLINICS :		
Special Inspections	19,341	
Re-inspections	14,603	
OPHTHALMIC CLINICS :		
Number of spectacles prescribed by the Ophthalmic Surgeons	4,719	6,689
AURAL CLINIC :		
Number examined by the Aural Surgeon	1,746	5,088
Number of mastoid dressings	307	
Number of other aural treatments	1,179	
Number of audiograms	1,856	
ORTHOPAEDIC CLINICS :		
Number examined by the Orthopaedic Surgeon	205	
Number treated by the Physiotherapists	2,376	29,874
CHILD GUIDANCE CLINICS	581	
SPEECH THERAPY CLINICS	1,331	8,245
ULTRA-VIOLET RAY TREATMENT	2,020	26,449
DENTAL CLINICS	43,142	81,098
ORTHODONTIC CLINIC	328	6,115
ASTHMA CLINIC	406	4,269
SCHOOL NURSES AND/OR NURSING ASSISTANTS :		
Examinations of Children for Uncleanliness	337,063	
Vision Tests	78,298	
Home Visits	8,674	
CHIROPODY CLINIC	610	1,815
AUDIOMETER SWEEP TESTS	4,543	

CITY OF BIRMINGHAM

GENERAL INFORMATION

Population (Estimated)	1,110,290
Area	51,147 acres(80 sq. mls.)
Density of Population	21.7 persons per acre
Rateable Value (at 1.4.62)	£18,145,857
Education Rate	19s. 9.02d.
Penny Rate produces	£72,160
Primary and Secondary Schools (including Nursery Schools) :	
Number of Schools	495
Number on Rolls at end of year	177,293
Special Schools :	
Number of Schools	28
Average Number on Rolls	2,832

ANNUAL REPORT

of the

PRINCIPAL SCHOOL MEDICAL OFFICER

E. L. M. MILLAR, M.D., M.Sc., D.P.H.

For the year ended 31st December, 1962

To the Chairman and Members of the Education Committee

I have the honour to present for your consideration the report on the School Health Service for the year ended 31st December, 1962.

During the year, the School Medical Officers carried out the customary medical inspections and special consultations, and their findings would suggest that in general the health of the Birmingham school children continues to be good. Special attention, however, continues to be paid to the children who are found to be in an unsatisfactory state of health. The factors contributing to this state have been discussed in previous reports and careful consideration is given to their possible remedy.

The quinquennial survey of the heights and weights which were taken during the year is presented in the body of the report. Whilst the findings are in statistical terms, the inferences are of great interest.

The principles of the promotion of health and the prevention of disease continue to pervade the Service. The teachers are also active in helping the children to rise to their full potential of health. They, together with the Inspectors and Education Welfare Officers, bring to the notice of the school doctors and nurses, children who in particular may need special consideration. In the pilot scheme for the possible modification of medical inspection which is now being carried out this continued interest is of great help.

A report regarding a proposed investigation into the Local Authority Child Health Services in Birmingham by a doctor working under the guidance of Professor Hubble and myself was submitted to the Committee. Dr. Patria Asher was later appointed by the Council of the Institute of Child Health, on which the Education Committee is represented, to carry out the projected survey.

The curative side of many of the activities of the Service is described in the Report. It is not possible to do justice to the presentation in a summary and I would commend the informative accounts.

A note on the provision made for children classified as "delicate" is included in the Report. Your Committee are aware that, for some time, the trend has been for schools for delicate children to cater for pupils with an even wider range of disabilities, especially involving conditions arising from emotional difficulties and problems of adjustment, and who have more divergent needs calling for greater skill and flexibility in providing them with special educational treatment.

Although the Service is not now directly concerned with the National Survey of the Health and Development of Children born in March 1946, an account is given of its further progress.

The Service continues to co-operate with the Ministry of Health's enquiry into the nutrition in large families.

A meeting of the Committee of the West Midlands Advisory Council on Special Educational Treatment on which the Authority has representatives, met in Birmingham on 5th October. A brief note of the meeting is given in the Report.

The Committee has agreed to the provision of an additional dental surgery at Slade Road Clinic.

During the year the new domiciliary block for 38 boys and two flats for married teachers were under construction at Hunters Hill School.

The dining room and domestic subjects room were completed at Cropwood School.

At Braidwood School the second phase in the installation of the group hearing aid equipment was completed during the year.

Progress had been made by the end of the year in the erection of the new schools on the campus site at Bell Hill, Northfield, for deaf, partially-sighted and physically handicapped children.

During the year plans were approved for submission to the Ministry for the special school for physically handicapped children at Brays Road to serve East Birmingham.

Plans were accepted for the provision of a boarding school for 45 physically handicapped pupils (congenital and rheumatic heart cases and delicate pupils) on part of the site of the Baskerville School, and for the adaption of the Baskerville School building as a school for maladjusted pupils.

During the year the Committee agreed to the conversion at St. Francis School in order to make a unit for twelve specially difficult children (junior boys and girls of all ages) who need more attention

than they can be given in the larger houses but who are capable of education and of improvement if such special attention can be given. It is considered that this is an educational experiment of some importance.

In the last week of the summer term a party of 20 spastic children from the Victoria and Wilson Stuart Schools attended a successful residential course at Barnes Close, organised by the Welfare Department of the Midland Spastic Association. The cost was met from a fund privately donated to the Association for this purpose.

Education for children in the Children's, Dudley Road and Accident Hospitals had been carried out for some time. Following representations from the Authority, the establishment of Hospital Special Schools at these three hospitals was agreed to by the Ministry of Education as from 1st August, 1962.

For the record, the following circulars, which have been issued during the year, may be mentioned :

Ministry of Education Circular 3/62 (12th March, 1962) ; Ministry of Health Circular 6/62 (12th March, 1962), both on the subject 'Smoking and Health'. They dealt with the report of the Royal College of Physicians, published 8th March, 1962, and drew special attention to the conclusion of the report on the dangers of smoking.

Suggestions regarding efforts to be made to discourage smoking among children and to prevent the formation of the smoking habit have been taken up. The subject had of course been included in the Health Education Curriculum in the Schools soon after the earlier factual evidence was published.

Ministry of Education Circular 8/62, Ministry of Health Circular 20/62. 'Local Authority Dental Services', 27th August, 1962. In these circulars local education and health authorities were asked to review their dental services. Consideration has been given to the suggestions contained in the circulars.

Ministry of Education Circular 10/62 (25th September, 1962). 'Children with impaired hearing. Notes for the guidance of those concerned in the placement of deaf and partially hearing pupils in suitable schools'. It will be noted that the term "partially hearing" has been substituted for "partially deaf". The Handicapped Pupils and Special School Amending Regulations, 1st October, 1962, contained this term in the new definitions of children with impaired hearing.

"By substituting the term 'partially hearing' for 'partially deaf' it has been possible to reflect a more positive approach to the use of residual hearing and in this way to underline the importance of early diagnosis". These considerations are well appreciated by this Authority.

Mention is made in the Report of the changes amongst various members of the staff.

I very much regret to have to report the death of Mr. C. R. Foden at the age of 59 on 8th March, 1963. He was appointed as a School Dental Surgeon in June 1937 and served the Committee most conscientiously and loyally. We mourn a very valuable colleague.

Finally, it a pleasure to acknowledge most sincerely the support and interest of the Chairman and Members of the Committee in the welfare of the children, to express my thanks to Sir Lionel Russell, the Chief Education Officer, for his consideration and assistance, to Dr. Cohen and the staff of the various departments for their help in the preparation of the report, the members of the Public Health Department for the account of the work undertaken in that Department, to the teachers for their ready co-operation, and to the members of the School Health Service.

E. L. M. MILLAR

SCHOOL CLINIC	Number of Schools	Work Undertaken (Number of Sessions per week)									
		Minor Ailments and Inspection (Doctor Sessions)	Refraction	Dental	Orthopaedic	U.V.R.	Ear, Nose and Throat	Speech Therapy	Orthodontic	Chiropody	Asthma
Aldridge Road, Great Barr ..	19	2	1	10	5	2					
Albert Road, Aston	22	4	1½	10		2					
Albert Road, Harborne	46	2	1	17	5	3					
Benacre Street ..	33	4	1½	20	5	4					
Church Lane, Kitts Green ..	37	2	1	18		3					
Gt. Charles Street ..	42	4	3	15			2				2
Soho Hill, Handsworth	41	3	1	19	5	2		6			
Harvey Road, South Yardley ..	28	2	1	20	3	2		4			
Maas Road, Northfield ..	39	2	1½	19	3	4		2			
Sheep Street, Gosta Green ..	51	4	2	15	5	2			10	6	
Stratford Road, Sparkhill	50	3	1	20	10	4					
Slade Road, Erdington	38	2	1	10		5					
Warren Farm Road, Kingstanding ..	23	2	½	14		2					
Warstock Lane, Kings Heath ..	33	2	1	10	7	2					
Yardley Green Road, Little Bromwich ..	31	2	1	19		2					
Friends' Institute, Moseley Road ..								4			
Dame Elizabeth House, Stetchford ..								8			
9A, Sutton Street ..								6			
29 George Road ..								11			
455 Yardley Wood Rd.								16			
298 Warren Farm Rd., Kingstanding ..								2			
58 Lea Hall Road, Stechford								4			

CHILD GUIDANCE CLINICS : 29 GEORGE ROAD, BIRMINGHAM 15 ; 9A, SUTTON STREET, BIRMINGHAM, 6. and 455 YARDLEY WOOD ROAD, KINGS HEATH, BIRMINGHAM, 14.

The figures under the heading "Work undertaken" indicates the number of sessions usually held. The figure is not constant however, and varies according to the demand of the particular forms of treatment concerned.

By arrangement with the Public Health Department, the Dental Surgery at Nechells Green Health Centre was used for about four sessions per week and at St. Helliers Road, Child Welfare Centre on three sessions per week.

STAFF

During the year there have been several changes among the staff of the School Health Service. Doctors Daniell, Jackson and Thomas joined the Service and no doctors left the Service during the year.

Among the full-time Dental Officers, Mrs. Goodburn was re-appointed and Mr. Neale resigned at the end of September. Dr. N. A. Tomanek, full-time Dental Surgeon, died after a tragic accident in April, and reference to his excellent service was made in last year's Report.

Five School Nurses left the Service and were replaced during the year. There was a gain of one part-time Physiotherapist and three Speech Therapists, two of whom were appointed on a part-time basis.

As regards the Nursing Assistants and Dental Surgery Assistants, there have been one or two changes, the net result of which has been that the number of staff employed has remained static.

In the Child Guidance Service Miss H. M. Bartlett, Psychiatric Social Worker, resigned at the end of August. Three Social Workers were appointed, two of whom were part-time.

CO-ORDINATION

The interchange of relevant information between the Public Health Department and the School Health Service continues to take place smoothly and satisfactorily. The Maternity and Child Welfare records are sent from the Health Department and are attached to the School Medical Inspection Record for each child and retained in the medical envelope.

From the age of two onwards the Child Welfare Department sends lists periodically of children who are thought "defective". These are scrutinised and divided into those who may possibly be ascertained as "handicapped pupils" and the remainder for special attention at the school medical inspections.

Further help is given in the building up of continuous medical histories of school children through the reports received from the hospitals on children who have been under their care. In general, the suggestions in the Circular to the Hospital Boards are being carried out.

Speech Therapy Clinics are held in the Maternity and Child Welfare Clinics in Warren Farm Road and Lea Hall Road. Dental Clinics are held at Nechells Green Health Centre, and at the St. Heliers

Road, Northfield, Infant Welfare Centre. Co-operation between the Health Department and the School Health Service is working well.

Treatment is given for certain conditions in children referred from the Child Welfare Clinics.

The Ear, Nose and Throat Consultant employed by the Education Committee acts in an advisory capacity for such children as it might be necessary to refer to him from the Audiology Clinic. The Committee agreed to allow a teacher from one of the schools for the deaf to attend the Audiology Clinic at the Children's Hospital on one day a week and one of the Head Teachers to attend periodically, to give advice on future educational needs.

Selective information is sent to the family practitioners.

MEDICAL INSPECTION

The following arrangements are made for the medical inspection of pupils :

(*a*) As soon as possible after entry into the Infants' School.

(*b*) In the early part of the last year in the Primary School.

(*c*) In Secondary Schools, in the early part of the child's 15th year ; or in the early part of the 16th year and again within a year of leaving, in Grammar Schools.

Children who may need to be kept under observation for any defects found at the intermediate examination are seen either at the school clinic or when they arrive at the Secondary or Grammar School at the next visit of the medical officer. In this way they are followed up regularly.

The main statistics on medical inspection will be found on pages 148 to 153, and the findings are given in accordance with the Ministry's requirements.

The parents receive an invitation to be present at these examinations so that a full discussion can take place on each child. Whilst the parents in general appreciate the value of this consultation with the doctor, it is interesting to note from the following percentages that the attendances fall off with the older children.

Percentages of parents attending with children in the various age groups :

Year of Birth	*Boys Percentage*	*Girls Percentage*
1958 and later	96.2	97.3
1957	94.2	95.2
1956	96.2	95.4
1955	97.3	94.7
1954	91.1	89.2
1953	82.9	79.3
1952	84.2	87.3
1951	89.9	92.3
1950	92.1	91.4
1949	65.1	93.2
1948	53.4	68.5
1947 and earlier	44.7	63.4
AVERAGE ..	88.3	87.3

Furthermore it must be emphasised that when the doctor visits a school either for a periodic inspection or for a follow-up examination, he will also see any child about whose health the parent, teacher, nurse of School Welfare Officer is uncertain. This form of selective examination is considered to be of much importance. The pilot scheme for the possible modification of the intermediate inspection is being carried out and on its completion an evaluation will be undertaken.

PHYSICAL CONDITION

Classification under the heading "Physical Condition" on the School Medical Record.

As recommended by the Minister several years ago, the finding for the heading "Physical Condition" consists of a summing up of the medical officer's opinion on the child's physical fitness. Only two categories are considered necessary, i.e., "Satisfactory" and "Unsatisfactory". The reason for having two categories only is a practical one—it is suggested that every child whose physical condition is considered unsatisfactory should be thoroughly investigated, including the home circumstances, so that he can be helped as far as possible.

The relevant findings for the year under review follow according to the new classification.

Age Groups Inspected (By Year of Birth)	*Number of Pupils Inspected*	*Physical Condition of Pupils Inspected*			
		Satisfactory		Unsatisfactory	
		Number	*% of Column 2*	*Number*	*% of Column 2*
(1)	(2)	(3)	(4)	(5)	(6)
1958 and later ..	1,434	1,420	99.02	14	0.98
1957..	5,516	5,415	98.16	101	1.84
1956..	5,581	5,454	97.72	127	2.28
1955..	1,838	1,796	97.71	42	2.29
1954..	396	381	96.21	15	3.79
1953..	282	268	95.03	14	4.97
1952..	2,815	2,780	98.75	35	1.25
1951..	8,505	8,343	98.09	162	1.91
1950..	3,182	3,118	97.98	64	2.02
1949..	236	220	93.22	16	6.78
1948..	3,401	3,299	97.00	102	3.00
1947 and earlier ..	12,670	12,504	98.69	166	1.32
Total	45,856	44,998	98.12	858	1.88

In general it can be said that the condition of the children examined has been satisfactory. In the relatively small groups of children inspected who were born in the years 1953 and 1949 two medical officers found a disproportionately larger number of children who were "unsatisfactory". They are, of course, being followed up.

Yet it must be mentioned here that the grouping is arbitrary and the assessments by the medical officers are made on a subjective basis. So whilst the grouping should not be regarded as a strictly accurate measure, for example the medical officer's standard might be influenced by that of the locality or particular school, it is reasonable to assume that the general impression of the doctor, following the careful clinical examination, gives a reasonable indication of the child's physical condition.

HEIGHTS AND WEIGHTS

Mrs. J. M. Stokes of the Central Statistical Office contributes the following report, prepared with the co-operation of Mr. A. B. Neale, Statistician and Dr. H. M. Cohen.

SURVEY OF THE HEIGHTS AND WEIGHTS OF BIRMINGHAM SCHOOL CHILDREN, 1962

1. Introduction

This investigation forms the third in a series of quinquennial sample surveys on the heights and weights of pupils attending schools maintained or assisted by the City of Birmingham. The data were collected by school medical officers during the calendar year 1962, previous surveys having taken place in 1952 and 1957 (See References 1 and 2). Details of earlier work on heights and weights of children may be found in Reference 2.

The object of the Birmingham surveys is to detect changes in mean height and mean weight over the years and also the variation of these measurements with type of neighbourhood.

The investigation is limited to a study of children in three one-year age ranges, viz : boys and girls aged 6, 11 and 14 years last birthday, on the day of measurement.

The letters A, B and C are used to designate schools whose pupils are drawn from "best", "moderate" and "poor" districts of the City, respectively. By this means, the children in each sex-age group are sub-divided into groups representative of the three types of neighbourhood.

2. Data

2.1. Sample Sizes

A complete set of data for one child consists of sex, age, height and weight, together with name of school and its neighbourhood rating. After discarding any data which were incomplete or obviously wrongly recorded, the numbers of children in each sub-group were :

	Age last Birthday	*Neighbourhood Rating*			*All Neighbourhoods*
		A	B	C	
Boys	6	128	931	69	1,128
	11	236	1,741	252	2,229
	14	410	2,326	532	3,268
	All Boys	774	4,998	853	6,625
Girls	6	94	935	92	1,121
	11	220	1,701	239	2,160
	14	491	2,544	328	3,363
	All Girls	805	5,180	659	6,644
All Boys and Girls		1,579	10,178	1,512	13,962

For boys and girls alike, the total samples at ages 6, 11 and 14 amount to approximately 15%, 28% and 34% of the respective total populations in City schools.

The overall percentages of children sampled from A, B and C neighbourhoods are approximately 12%, 77% and 11% respectively.

2.2 Accuracy of Height and Weight Measurements

It was intended that height and weight should be measured to the nearest quarter inch and quarter pound respectively. However, accuracy varied between returns from different schools. It was apparent in some cases that measurements had been recorded to the nearest unit. (See Appendix A).

All means quoted in this report are based on figures as recorded on the returns.

2.3. Age

The age of each child has been taken to the nearest month. The children in each of the three chosen years of age are by no means evenly distributed among the twelve months in the year, and in general the mean ages do not fall in the centres of the three age groups (see Appendix B). Since both mean height and weight increase with age, differences in mean age must be allowed for when comparing different sets of children within an age group.

3. Mean Heights and Weights—1962

Table 1 gives the observed mean heights and mean weights of boys and girls by age-group and neighbourhood. Also shown are the mean ages of the children in each sub-group. In subsequent tables, differences in mean ages within an age group have been allowed for by adjusting measurements to common mean ages. Adjustments are based on estimated growth rates during the age ranges concerned, details of which are given in Appendix C.

Age-adjusted mean heights and weights are given in Table 2. In line with previous work, the adjusted values refer to mean ages of 6.50, 11.30 and 14.70 years for both boys and girls.

Also given in Table 2 are the standard errors of the means. There is a chance of only 5 in 100 that a mean will be in error by more than twice its standard error (s.e.).

4. Comparison of Neighbourhoods—1962

It will be seen from Table 2 that without exception, the mean measurements for A neighbourhoods are greater than those for B neighbourhoods. The heights and weights for B neighbourhoods are

in turn greater than for C neighbourhoods except in the case of the weight of 14 year old girls. The consistent gradation of values from one type of neighbourhood to another is in itself a strong indication that the differences are real, i.e. not due to sampling fluctuations alone.

In Table 3, the differences in age-adjusted measurements between A and B, B and C neighbourhoods, can be compared with the standard errors of these differences. A difference as great as, or greater than, twice its standard error can be regarded as "real" at the 5% level of significance. All differences marked with an asterisk are significant at the 5% level. The mean values are shown in Figure 1.

It is apparent that differences still survive between children from the three types of neighbourhood. All differences in height, except A *minus* B for 14 year old boys, are significant. Comparisons of weight involve relatively greater standard errors, and though differences certainly exist in some cases, significance is only attained in four of the twelve comparisons.

5. Comparison of Three Surveys —1952, '57 and '62

The mean heights and weights obtained in each of the three quinquennial surveys so far conducted are shown in Table 4. The associated standard errors are also given. The mean values are plotted in Figure 2 which shows upward trends in both height and weight at all ages.

Table 5 shows the differences in measurements from 1957 to 1962 and from 1952 to 1962, which can be compared with their standard errors. All differences are increases and asterisks indicate values which are significant at the 5% level. Differences for the 11 and 14 year old children are all significant. For 6 year olds the increases, if real, are too slight to attain significance.

On average, the differences in both height and weight between 1952 and 1962 are about double the differences between 1957 and 1962. Measurements can therefore be assumed to have increased at a more or less constant rate over the past ten years and the trend towards increased height and weight may be expected to continue.

6. Between Survey Comparison of Neighbourhoods

6.1. Mean heights of children by neighbourhood for each of the three Brimingham surveys are given in Table 6a together with their standard errors. Corresponding figures for weight appear in Table 6b.

Interest in neighbourhood comparisons between surveys centres on groups A and C. For instance it may be asked whether changes in mean measurements for the A and C groups follow the overall pattern. Table 7 gives changes in mean height and mean weight for A and C children. Differences can be compared with their standard errors in the usual way.

The definition of neighbourhood groups must be borne in mind when considering these results. A change in "C" measurements, for example, can only be associated meaningfully with "worst" neighbourhoods if the C rating accounts for a constant proportion of children in each survey. The actual percentages of children by neighbourhood in the three surveys are given below.

Percentage Distributions of Children by Neighbourhood

Neighbourhood Rating	*Year of Survey*		
	1952	1957	1962
A	15	14	12
B	56	75	77
C	29	11	11
All Neighbourhoods	100	100	100

It will be seen that the "A" percentages remain fairly constant but the "C" percentage in 1952 is more than double the value for 1957 and 1962. It is not known to what extent this change of definition will affect results so that the comparison between "C" neighbourhoods in 1952 and 1962 must be viewed with caution. "C" comparisons between 1957 and 1962 and all "A" comparisons are however straightforward.

The majority of the differences in Table 7 are positive (1962 results greater than those for 1952 or 1957) and none of the negative results is significant at the 5% level. The changes can be compared with the overall changes of Table 5. Over the ten year period 1952 to 1962, differences in height fall short of the overall differences with only two exceptions (11 year old "A" boys and 14 year old "C" girls where the differences are equal). On average the *increase* in height lags by about 0.3 inches in both the A and C groups. Over the five year period 1957 to 1962 there is no consistent effect. About half the results fall short of the overall changes in height while the remainder are in excess.

Similar conclusions hold in respect of weight. Between 1952 and 1962 *increases* in weight lag behind the overall values by an average of about one pound in A districts and one third of a pound in C districts. There is again no consistent effect between 1957 and 1962.

These results may be taken to indicate that changes in measurements have tended to be less pronounced in "best" and "worst" neighbourhoods than among children as a whole.

6.2. Geographical Comparison

The neighbourhood rating of several schools has changed between surveys so that the geographical areas included under each heading will also have changed, assuming each school draws its pupils from a given area.

Using a list of schools showing changes of neighbourhood rating between 1957 and 1962 it was possible to recalculate mean heights and weights for 1962 according to the 1957 classification of schools. These mean values are given in Table 8 together with their standard errors. The neighbourhoods are denoted by A', B' and C', which denote respectively the same geographical areas as the A, B and C neighbourhoods of the 1957 survey.

The changes in mean height and mean weight for A' and C' groups between 1957 and 1962 are given in Table 9. A few of the positive differences attain significance, but none of the negative values, indicating a tendency for both height and weight to increase between 1957 and 1962. Comparing these results with the overall changes of Table 5, no consistent effect is apparent. About half the differences for both height and weight exceed, and half fall short of, the overall differences. Thus over a period of five years no differential effects are demonstrable in A' and C' areas as compared with children as a whole.

7. Comparison of Birmingham Results with other Areas

Several local education authorities publish data on the heights and weights of school children. Among these are Liverpool, London and Sheffield (See Refs. 4 to 6). Where data are available for the same age groups as in Birmingham this is compared in Table 10.

Liverpool has in common only the 14 year age group. In the absence of any information on mean age, the raw data only are quoted. The figures are all less than for Birmingham and even assuming a central mean age of 14.5 for Liverpool and adjusting to a mean age of 14.7 as in the Birmingham results, differences still remain in the same direction. (Adjusted Liverpool figures would be 63.4″, 62.0″, 113.2 lb. and 112.8 lb. in the order of the measurements in the first data column of Table 10). Liverpool also quotes data for "good", "fair" and "poor" neighbourhoods but it is not known what proportions of children fall into each group. However, as in Birmingham average height and weight increase from "poor" through "fair" to "good" neighbourhoods.

For London, mean ages are as shown so that the raw data can be adjusted in the same way as the Birmingham results (to mean ages of 6.5, 11.3 and 14.7 years). Standard errors have also been extracted, making it possible to test for significant differences between the London and Birmingham results. All the London results exceed the Birmingham results except the weight of six year old boys ; and again with this exception, all differences are significant at the 5% level.

The Sheffield results unfortunately give no data on mean ages. However, since the data cover the majority of children at all school ages, it seems reasonable to assume central mean ages (6.5 years, etc.). On this basis, age adjustments have been applied as for the Birmingham results. Differences from the Birmingham results have been calculated but standard errors are not available for significance tests. However, all heights fall short of Birmingham values while all weights are greater. This surprising result may be due to different clothing allowances where weight is concerned. Sheffield also quotes figures for "good", "medium" and "poor" districts and these show increases in height and weight from "poor" through "medium" to "good" districts. However the percentages of children in the respective groups are 29%, 55% ,and 16% compared with 12%, 77% and 11% in Birmingham (1962) so that no direct comparison is possible.

Results throughout the country all provide evidence of trends towards increased height and weight in rising generations of children. (Refs. 4—8). At age 14, the national average increase in height between 1950 and 1960 is 0.9″ for boys and 0.3″ for girls (Ref. 8, p.52). This compares with increases of 0.95″ for boys and 0.40″ for girls between 1952 and 1962 in Birmingham.

8. Summary

Mean height and weight have continued to increase during the years 1957 to 1962 at about the same rate as between 1952 and 1957. Over the last five years increases in mean height of boys aged 6, 11 and 14 have been about 1/10, $\frac{1}{4}$ and $\frac{1}{2}$ inch respectively ; and for girls 1/10, $\frac{1}{4}$ and 1/5 inch. During the same period the increases in mean weight of boys were approximately $\frac{1}{4}$, 1 and 4 lbs. at ages 6, 11 and 14 respectively compared with 1/10, 2 and 4 lbs. for girls (Section 5 and Figure 2).

Differences in mean measurements associated with children from "best" "moderate" and "poor" neighbourhoods of the City still survive (Section 4 and Figure 1). There is some indication that increases in measurements over the years may be lower in "best" and "poor" districts than among children as a whole (Section 6).

On average, Birmingham children appear to be taller than Sheffield children but shorter than London children. The increase in height of 14 year old Birmingham children over the ten-year period 1952 to 1962 is in line with the national average (Section 7).

An attempt has been made in Appendix D to construct an objective measure of obesity among Birmingham children aged 11 and 14. It is hoped to be able to use this in future surveys, to determine whether obesity is on the increase. It is shown that for 1962 there is no significant difference in the overall incidences of obesity for the three neighbourhood groups although there appear to be rather more fat girls in C than in A neighbourhoods.

TABLE 1

Observed Mean Height (h, inches), Mean Weight (w, pounds) and Mean Age (y, years) by Sex Neighbourhood and Age last Birthday—Birmingham 1962

	Age last Birthday (years)	*Neighbourhood*									*All Neighbourhoods*		
		A			B			C					
		h	w	y	h	w	y	h	w	y	h	w	y
Boys	6	46.42	49.27	6.52	45.70	47.44	6.41	44.88	46.63	6.40	45.73	47.60	6.42
	11	56.67	81.11	11.24	55.99	77.36	11.29	54.89	75.74	11.27	55.94	77.58	11.28
	14	64.17	114.65	14.64	64.07	114.59	14.71	63.33	110.96	14.68	63.96	114.01	14.70
Girls	6	45.96	47.64	6.44	45.40	46.42	6.43	44.39	44.06	6.41	45.37	46.33	6.43
	11	56.62	80.92	11.28	56.14	79.24	11.30	55.40	79.12	11.30	56.11	79.39	11.29
	14	62.53	114.78	14.73	62.22	113.89	14.72	61.77	113.72	14.70	62.22	114.00	14.72

TABLE 2

Age-Adjusted Mean Height (*H*, inches), and Mean Weight (*W*, pounds) by Sex Neighbourhood and Age last birthday—Birmingham 1962

	Age (1)	*Neighbourhood*												*All Neighbourhoods*			
		A				B				C							
		H	*s.e.(H)*	*W*	*s.e.(W)*	*H*	*s.e. (H)*	*W*	*s.e.(W)*	*H*	*s.e. (H)*	*W*	*s.e.(W)*	*H*	*s.e.(H)*	*W*	*s.e.(W)*
Boys	6	46.37	0.21	49.17	0.57	45.90	0.07	47.89	0.21	45.11	0.28	47.13	0.85	45.91	0.07	48.00	0.20
	11	56.81	0.20	81.53	0.95	56.01	0.06	77.43	0.33	54.96	0.18	75.95	0.87	55.99	0.06	77.72	0.29
	14	64.32	0.17	115.49	1.02	64.04	0.07	114.45	0.42	63.38	0.15	111.24	0.92	63.96	0.06	114.01	0.36
Girls	6	46.10	0.24	47.88	0.85	45.56	0.07	46.70	0.23	44.59	0.24	44.42	0.68	45.53	0.07	46.61	0.21
	11	56.67	0.20	81.10	1.16	56.14	0.07	79.24	0.40	55.40	0.20	79.12	1.22	56.13	0.06	79.48	0.36
	14	62.49	0.12	114.48	0.87	62.19	0.05	113.69	0.40	61.77	0.14	113.72	1.29	62.19	0.04	113.80	0.35

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.50, 11.30 and 14.70 years.

s.e. Denotes standard error of mean value.

TABLE 3

Comparison of Mean Heights and Mean Weights between Neighbourhoods—Birmingham 1962

	Age (1)	*Mean Height (inches)*				*Mean Weight (pounds)*			
		A *less* B		B *less* C		A *less* B		B *less* C	
		Difference	*s.e.*	*Difference*	*s.e.*	*Difference*	*s.e.*	*Difference*	*s.e.*
Boys	6	0.47*	0.22	0.79*	0.29	1.28*	0.61	0.76	0.88
	11	0.80*	0.21	1.05*	0.19	4.10*	1.01	1.48	0.93
	14	0.28	0.18	0.66*	0.17	1.04	1.10	3.21*	1.01
Girls	6	0.54*	0.25	0.97*	0.25	1.18	0.88	2.28*	0.72
	11	0.53*	0.21	0.74*	0.21	1.86	1.23	0.12	1.28
	14	0.30*	0.13	0.42*	0.15	0.79	0.98	—0.03	1.35

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

s.e. Denotes standard error of difference.

* Denotes a significant difference at the 5% level.

TABLE 4

Mean Height (*H*, inches) and Mean Weight (*W*, pounds) by Sex and Age
Birmingham 1952, 57 and 62

	Age (1)	*Year of Survey*											
		1952				1957				1962			
		H	*s.e. (H)*	*W*	*s.e. (W)*	*H*	*s.e. (H)*	*W*	*s.e. (W)*	*H*	*s.e. (H)*	*W*	*s.e. (W)*
Boys	6	45.87	0.07	47.52	0.15	45.82	0.06	47.71	0.17	45.91	0.07	48.00	0.20
	11	55.32	0.10	73.18	0.36	55.72	0.06	76.76	0.29	55.99	0.06	77.72	0.29
	14	63.01	0.10	108.27	0.55	63.53	0.06	110.04	0.34	63.96	0.06	114.01	0.36
Girls	6	45.43	0.08	46.39	0.18	45.43	0.06	46.51	0.18	45.53	0.07	46.61	0.21
	11	55.39	0.10	74.00	0.44	55.91	0.07	77.51	0.31	56.13	0.06	79.48	0.36
	14	61.79	0.08	108.03	0.40	62.02	0.05	110.02	0.33	62.19	0.04	113.80	0.35

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

s.e. Denotes standard error of mean value.

TABLE 5

Changes in Mean Height and Mean Weight 1957 to 1962 and 1952 to 1962

	Age (*1*)	*Mean Height* (*inches*)				*Mean Weight* (*pounds*)			
		1962 *less* 1957 *value*		1962 *less* 1952 *value*		1962 *less* 1957 *value*		1962 *less* 1952 *value*	
		Difference	*s.e.*	*Difference*	*s.e.*	*Difference*	*s.e.*	*Difference*	*s.e.*
Boys	6	0.09	0.09	0.04	0.10	0.29	0.26	0.48	0.25
	11	0.27*	0.08	0.67*	0.12	0.96*	0.41	4.54*	0.46
	14	0.43*	0.08	0.95*	0.12	3.97*	0.50	5.74*	0.66
Girls	6	0.10	0.09	0.10	0.09	0.10	0.28	0.22	0.28
	11	0.22*	0.09	0.74*	0.12	1.97*	0.48	5.48*	0.57
	14	0.17*	0.06	0.40*	0.09	3.78*	0.48	5.77*	0.53

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

s.e. Denotes standard error of significance.

* Denotes significance at the 5% level

TABLE 6a

Mean Heights of Children by Neighbourhood—Birmingham 1952, 57 and 62

	Age (1)	*Year of Survey*	*Neighbourhood*						*All Neighbourhoods*	
			A		B		C			
			Mean	*s.e.*	*Mean*	*s.e.*	*Mean*	*s.e.*	*Mean*	*s.e.*
Boys	6	1952	46.85	0.19	45.85	0.10	45.26	0.12	45.87	0.07
		1957	46.46	0.19	45.85	0.07	44.87	0.22	45.82	0.06
		1962	46.37	0.21	45.90	0.07	45.11	0.28	45.91	0.07
	11	1952	55.82	0.27	55.40	0.12	54.96	0.18	55.32	0.10
		1957	56.52	0.14	55.73	0.07	55.19	0.16	55.72	0.06
		1962	56.81	0.20	56.01	0.06	54.96	0.18	55.99	0.06
	14	1952	63.43	0.31	63.13	0.12	62.65	0.21	63.01	0.10
		1957	64.06	0.15	63.47	0.07	63.12	0.19	63.53	0.06
		1962	64.32	0.17	64.04	0.07	63.38	0.15	63.96	0.06
Girls	6	1952	46.18	0.38	45.48	0.09	44.78	0.13	45.43	0.08
		1957	45.98	0.17	45.42	0.07	44.74	0.20	45.43	0.06
		1962	46.10	0.24	45.56	0.07	44.59	0.24	45.53	0.07
	11	1952	56.91	0.29	55.28	0.13	54.95	0.17	55.39	0.10
		1957	56.50	0.18	55.97	0.08	54.86	0.18	55.91	0.07
		1962	56.67	0.20	56.14	0.07	55.40	0.20	56.13	0.06
	14	1952	62.43	0.26	61.74	0.09	61.37	0.12	61.79	0.08
		1957	62.32	0.11	62.07	0.05	61.17	0.15	62.02	0.05
		1962	62.49	0.12	62.19	0.05	61.77	0.14	62.19	0.04

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

s.e. Denotes standard error of mean value.

TABLE 6b

Mean Weights of Children by Neighbourhood—Birmingham 1952, 57 and 62

	Age (1)	Year of Survey	Neighbourhood						All Neighbourhoods	
			A		B		C			
			Mean	s.e.	Mean	s.e.	Mean	s.e.	Mean	s.e.
Boys	6	1952	49.56	0.43	47.35	0.19	46.67	0.35	47.52	0.15
		1957	48.70	0.60	47.68	0.18	46.84	0.64	47.71	0.17
		1962	49.17	0.57	47.89	0.21	47.13	0 85	48.00	0.20
	11	1952	74.54	1.01	72.96	0.47	73.07	0.67	73.18	0.36
		1957	79.11	0.82	76.53	0.34	75.79	0.77	76.76	0.29
		1962	81.53	0.95	77.43	0.33	75.95	0.87	77.72	0.29
	14	1952	109.93	2.11	109.10	0.70	106.21	0.92	108.27	0.55
		1957	112.24	0.83	110.83	0.40	110.46	1.07	110.04	0.34
		1962	115.49	1.02	114.45	0.42	111.24	0.92	114.01	0.36
Girls	6	1952	48.04	0.48	46.19	0.22	45.65	0.34	46.39	0.18
		1957	48.16	0.58	46.33	0.20	45.77	0.61	46.51	0.18
		1962	47.88	0.85	46.70	0.23	44.42	0.68	46.61	0.21
	11	1952	79.98	1.40	73.05	0.59	73.01	0.72	74.00	0.44
		1957	79.70	0.88	77.44	0.36	75.46	0.87	77.51	0.31
		1962	81.10	1.16	79.24	0.40	79.12	1.22	79.48	0.36
	14	1952	110.50	0.90	107.63	0.58	106.81	0.70	108.03	0.40
		1957	110.68	0.80	110.09	0.38	108.49	0.96	110.02	0.33
		1962	114.48	0.87	113.69	0.40	113.72	1.29	113.80	0.35

Footontes : (1) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

s.e. Denotes standard error of mean value.

TABLE 7

Changes in Measurements in A and C neighbourhoods
Birmingham 1957 to '62 and 1952 to '62

	Age (*1*)	*Height* (*ins.*)								*Weight* (*lbs.*)							
		1962 *less* 1957				1962 *less* 1952				1962 *less* 1957				1962 *less* 1952			
		A		C		A		C		A		C		A		C	
		Diff.	*s.e.*	*Diff.*	*s.e.*	*Diff.*	*s.e.*	*Diff.*	*s.e.*	*Diff.*	*s.e.*	*Diff.*	*s.e.*	*Diff.*	*s.e.*	*Diff.*	*s.e.*
Boys	6	—0.09	0.28	0.24	0.36	—0.48	0.28	—0.15	0.30	0.47	0.83	0.29	1.06	—0.39	0.71	0.46	0.92
	11	0.29	0.24	—0.23	0.24	0.99*	0.34	0.00	0.25	2.42	1.25	0.16	1.16	6.99*	1.39	2.88*	1.10
	14	0.26	0.23	0.26	0.24	0.89*	0.35	0.73*	0.26	3.25*	1.32	0.78	1.41	5.56*	2.34	5.03*	1.30
Girls	6	0.12	0.29	—0.15	0.31	—0.08	0.45	—0.19	0.27	—0.28	1.03	—0.35	0.91	—0.16	0.98	—1.23	0.76
	11	0.17	0.27	0.54*	0.27	—0.24	0.35	0.45	0.26	1.40	1.46	3.66*	1.50	1.12	1.82	6.11*	1.42
	14	0.17	0.16	0.60*	0.21	0.06	0.29	0.40*	0.18	3.80*	1.18	5.23*	1.61	3.98*	1.25	6.91*	1.47

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.
s.e. Denotes standard error of a difference.
* Indicates a significant difference at the 5% level.

TABLE 8

Mean Heights and Mean Weights of Children from A', B' and C' Neighbourhoods (*2*) Birmingham 1962

	Age (*1*)	*Mean Height* (*ins.*)						*Mean Weight* (*lbs.*)					
		A'		B'		C'		A'		B'		C'	
		Mean	*s.e.*	*Mean*	*s.e.*	*Mean*	*s.e.*	*Mean*	*s.e.*	*Mean*	*s.e.*	*Mean*	*s.e.*
Boys	6	46.37	0.21	45.92	0.07	45.59	0.26	49.17	0.57	47.87	0.22	48.33	0.79
	11	56.87	0.19	55.97	0.06	54.92	0.19	80.41	0.87	77.55	0.33	75.41	0.85
	14	64.30	0.15	63.98	0.07	63.24	0.16	116.31	0.91	114.15	0.43	109.96	0.97
Girls	6	46.10	0.24	45.56	0.07	44.83	0.22	47.88	0.85	46.78	0.23	44.44	0.63
	11	56.87	0.20	56.24	0.08	55.46	0.20	81.90	1.15	79.50	0.40	79.16	1.23
	14	62.49	0.11	62.15	0.05	61.77	0.14	114.70	0.82	113.51	0.40	113.08	1.26

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

(*2*) Neighbourhood is here to be interpreted as the specific areas of the City designated as A, B and C in the 1957 survey.

s.e. Denotes standard error of a mean value.

TABLE 9

Changes in Mean Measurements in A' and C' Neighbourhoods (*2*) of Birmingham between 1957 and 1962

	Age (1)	*Height (ins.)*				*Weight (lbs.)*			
		A'		C'		A'		C'	
		Difference	*s.e.*	*Difference*	*s.e.*	*Difference*	*s.e.*	*Difference*	*s.e.*
Boys	6	—0.09	0.28	0.48	0.34	0.47	0.83	0.89	1.02
	11	0.32	0.24	—0.25	0.25	1.86	1.20	—0.11	1.15
	14	0.25	0.21	0.19	0.25	3.66★	1.23	—0.14	1.44
Girls	6	0.12	0.29	—0.03	0.30	—0.28	1.03	—0.34	0.88
	11	0.27	0.27	0.57★	0.27	1.80	1.45	3.68★	1.51
	14	0.20	0.16	0.60★	0.21	3.91★	1.15	4.91★	1.58

Footnotes : (*1*) Entries adjusted to comply with mean ages of 6.5, 11.3 and 14.7 years.

(*2*) Neighbourhood is here to be interpreted geographically as the specific areas of the City designated by A, B and C in 1957.

s.e. Denotes standard error of a difference.

★ Indicates a significant difference at the 5% level.

TABLE 10

Comparison of Birmingham Results with other Surveys

	Age Group	*Liverpool* 1961 (*1*)		*London* 1959 (*2*)					*Sheffield* 1961 (*3*)			
		Raw Data	*Liverpool LESS B'ham*	*Raw Data*	*Given Mean Age*	*Adjusted Data*	*London LESS B'ham*	*s.e. of difference*	*Raw Data*	*Assumed Mean Age*	*Adjusted Data*	*Sheffield LESS B'ham*
						Mean Height (ins.)						
Boys	6	—	—	46.06	6.45	46.17	0.26	0.10	45 63	6.5	45.63	—0.28
	11	—	—	57.05	11.49	56.62	0.63	0.09	56.12	11.5	55.67	—0.32
	14	62.9	—1.1	64.17	14.46	64.77	0.81	0.12	63.20	14.5	63.70	—0.26
Girls	6	—	—	45.87	6.47	45.94	0.41	0.10	45.37	6.5	45.37	—0.16
	11	—	—	57.48	11.47	57.10	0.97	0.10	56.47	11.5	56.02	—0.11
	14	61.7	—0.5	62.60	14.46	62.90	0.71	0.09	61.92	14.5	62.17	—0.02
						Mean Weight (lbs.)						
Boys	6	—	—	47.33	6.45	47.58	—0.42	0.30	48.39	6.5	48.39	0.39
	11	—	—	81.15	11.49	79.82	2.10	0.51	81.22	11.5	79.82	2.10
	14	110.4	—3.6	112.66	14.46	116.02	2.01	0.76	113.14	14.5	115.94	1.93
Girls	6	—	—	47.16	6.47	47.28	0.67	0.32	47.52	6.5	47.52	0.91
	11	—	—	84.00	11.47	82.47	2.99	0.62	83.31	11.5	81.51	2.03
	14	110.8	—3.0	112.59	14.46	114.99	1.19	0.68	113.39	14.5	115.39	1.59

Footnote : Adjusted data refer to mean ages of 6.5, 11.3 and 14.7 years in line with Birmingham figures.

Sources : (*1*) Ref 6 p.13—4 ; (*2*) Ref 5 p.18—21 (results converted from cm. and kg.) ; (*3*) Ref 4 p.68—9.

FIGURE 1 — COMPARISON BETWEEN A, B AND C NEIGHBOURHOODS, 1962.

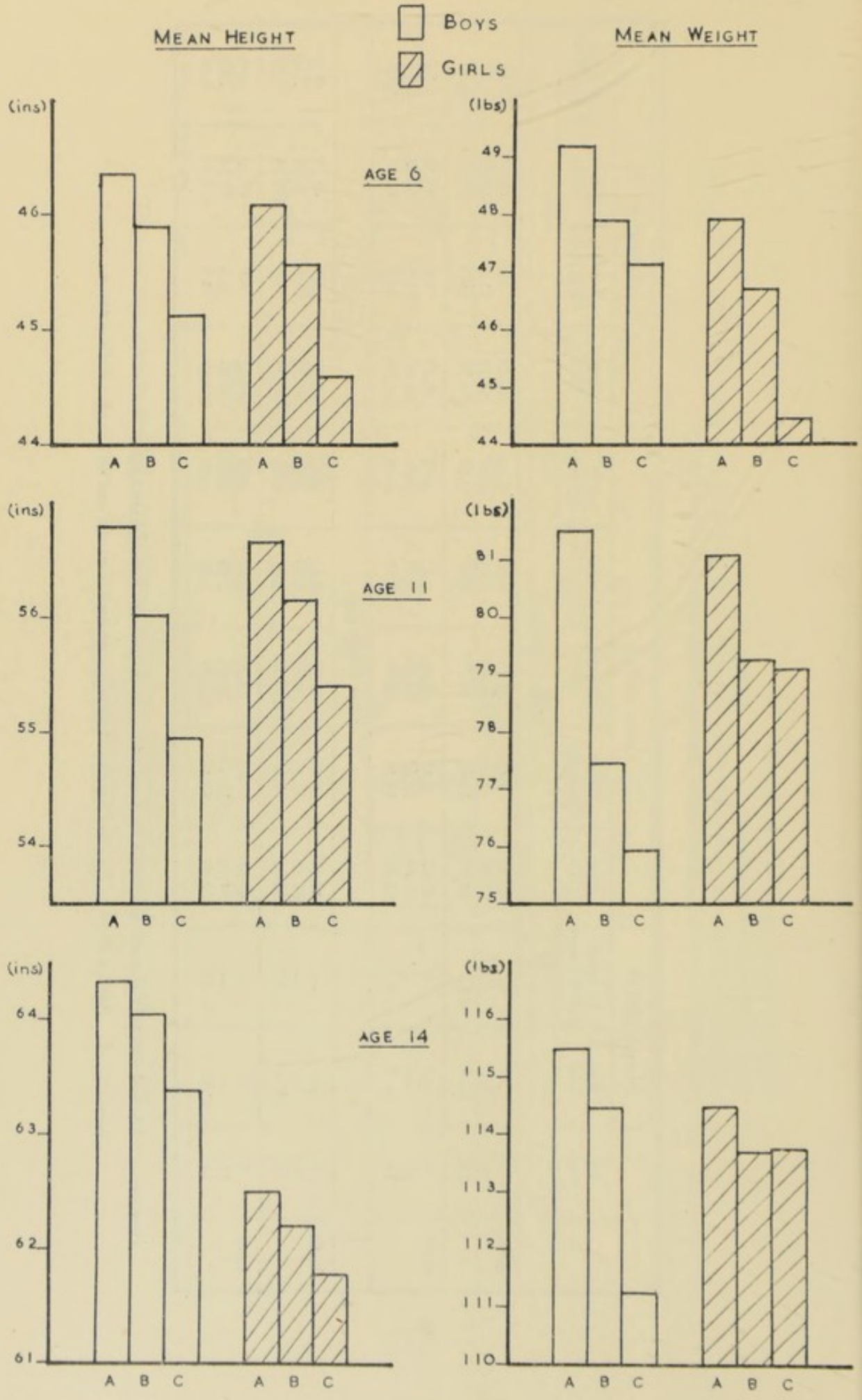
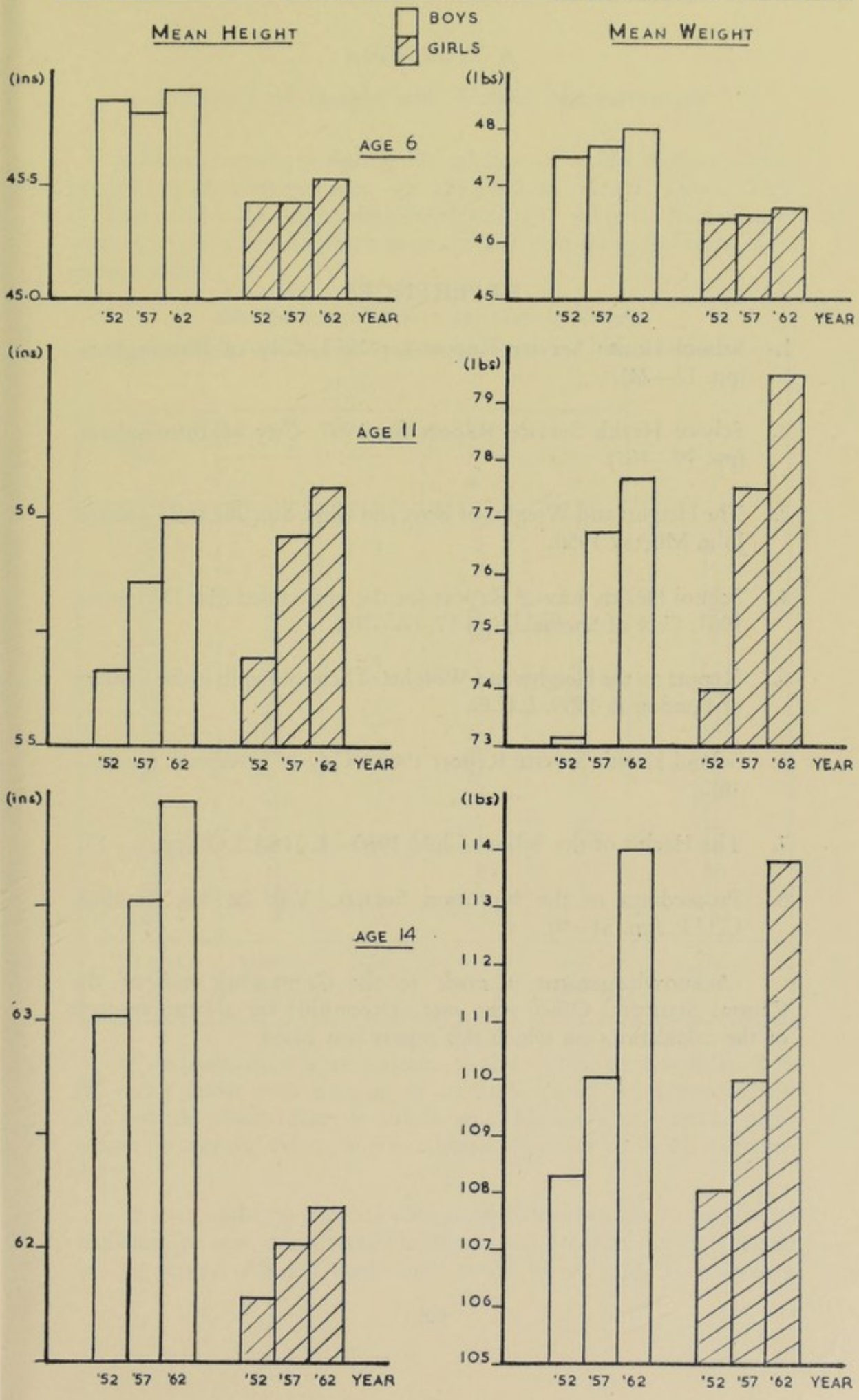


FIGURE 2 — COMPARISON OF SURVEYS, ALL CHILDREN.



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Acknowledgement is made to the Computing staff of the Central Statistical Office who were responsible for a large amount of the calculations on which this report was based.

APPENDIX A

Accuracy of Height and Weight Measurements

It became apparent during the analysis of results that an undue proportion of measurements was recorded at integral values. This is illustrated by the height data for eleven year old girls. Excluding 8 outlying values, the distribution of children according to height is as shown below :

Distribution of 11 year old Girls by Height

Height					
Inches	*Fraction of an inch*				*Total in inch range*
	0	¼	½	¾	
47	1	1	3	0	5
48	7	0	7	1	15
49	6	2	8	1	17
50	15	4	16	6	41
51	26	6	18	7	57
52	58	15	44	16	133
53	94	24	53	22	193
54	117	31	84	26	258
55	135	31	94	23	283
56	101	38	87	24	250
57	136	47	66	22	271
58	106	21	62	19	208
59	93	24	48	9	174
60	73	9	21	8	111
61	34	13	20	1	68
62	25	3	8	3	39
63	17	3	1	0	21
64	4	0	4	0	8
TOTALS	1,048	272	644	188	2,152
%	48.7	12.7	29.9	8.7	100.0

If measurements were accurate to the nearest quarter-inch, then the totals under each fraction of an inch would be approximately equal at 538 observations. It will be seen that there is a marked preference for integral values, and to a lesser extent for half-inch measurements.

From a statistical point of view, measurements made to the nearest half-unit (or unit, even) would be sufficiently accurate for the purpose of the survey. Also, if conformity could be obtained in recording

measurements to the nearest half-unit, this would mean a saving in computational labour. It is therefore suggested that in future, observers should be asked to record measurements to the nearest half-unit.

APPENDIX B

Age Distributions

The distributions of boys from "B" neighbourhoods, by months of age, are tabulated below. The data are illustrated in the accompanying Figure.

Age distribution of Boys from "B" Neighbourhoods, 1962

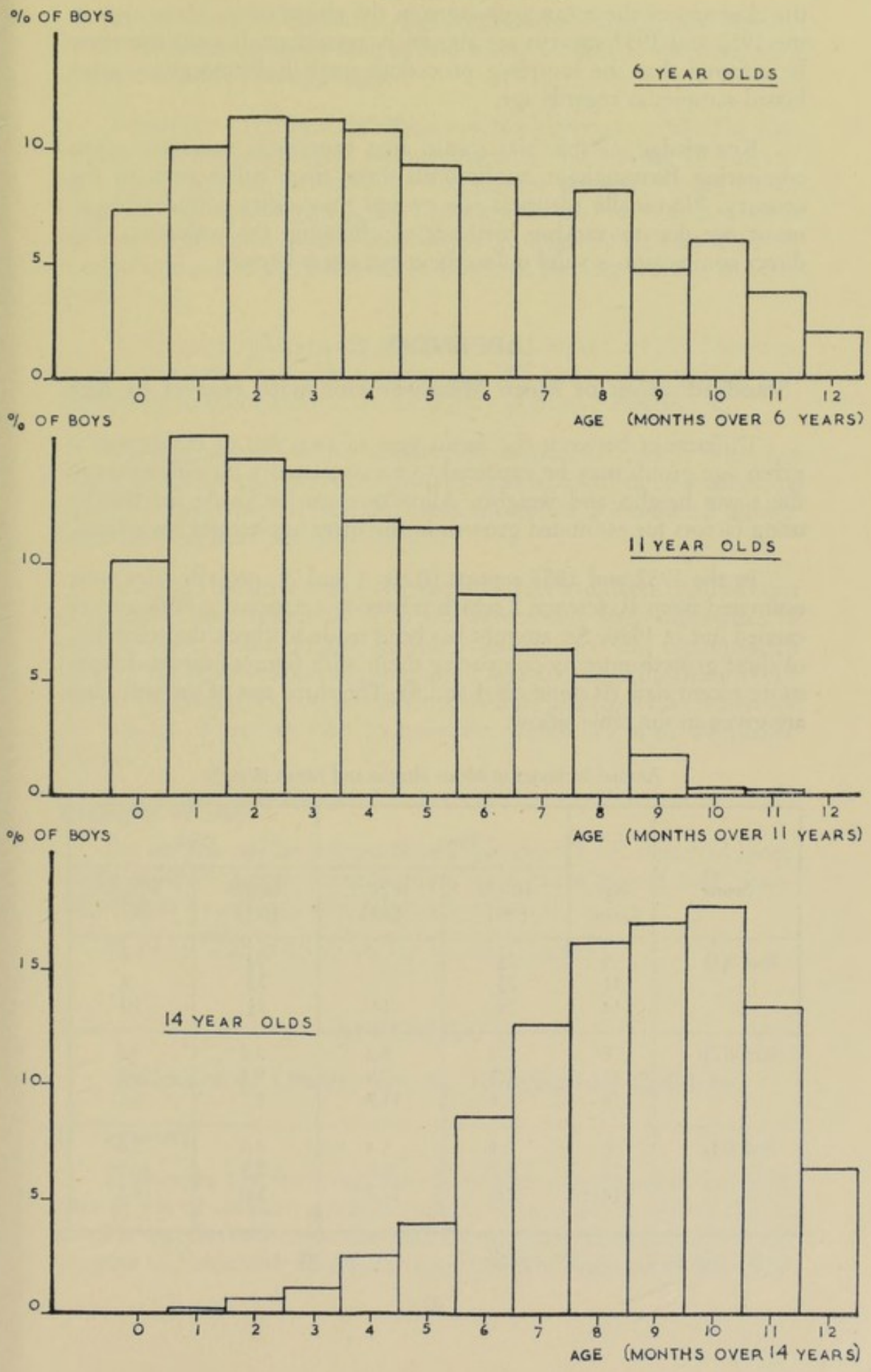
Age (1)						
Months	*Years*					
	6		*11*		*14*	
	No.	*%*	*No.*	*%*	*No.*	*%*
0	68	7.3	175	10.1	1	0.0
1	94	10.1	270	15.5	2	0.1
2	105	11.3	253	14.5	14	0.6
3	104	11.2	244	14.0	25	1.1
4	101	10.8	207	11.9	58	2.5
5	85	9.1	203	11.7	90	3.9
6	80	8.6	152	8.7	199	8.6
7	66	7.1	108	6.2	293	12.6
8	76	8.2	88	5.1	375	16.1
9	44	4.7	32	1.8	396	17.0
10	55	5.9	7	0.4	412	17.7
11	34	3.7	2	0.1	312	13.4
12	19	2.0	0	0	149	6.4
TOTALS ..	931	100.0	1,741	100.0	2,326	100.0
Mean ages for Boys (years)		6.41		11.29		14.71
Corresponding mean for girls ..		6.43		11.30		14.72

(*1*) To *nearest* month

The total school population in the three age ranges considered is presumably spread evenly between months. However, the above data show pronounced systematic deviations from rectangular distributions. The corresponding distributions for girls are similar, as is reflected by

(*Continued on page* 42)

PERCENTAGE DISTRIBUTIONS OF BOYS FROM 8 NEIGHBOURHOODS BY AGE IN MONTHS



the closeness of the mean ages given in the above table. Mean ages in the 1952 and 1957 surveys are also fairly consistent. It must therefore be inferred that the sampling procedure used in Birmingham gives biased samples as regards age.

Knowledge of this bias means that caution is necessary when comparing Birmingham results with those from other parts of the country. Nominally identical age groups may differ considerably in mean age due to varying methods of obtaining the basic data. No direct comparison is valid unless the mean age is known.

APPENDIX C

Standardisation of Mean Measurements with respect to Age

Differences between the mean ages of two sets of children in a given age group may be expected to be associated with differences in the mean heights and weights. Allowance can be made for this by using factors for estimated growth in the three age-ranges considered.

In the 1952 and 1957 reports (Refs. 1 and 2), growth rates were estimated from Reference 3 which relates to a national sample survey carried out in 1948, An attempt has been made to check the reliability of these growth rates by comparing them with figures estimated from more recent data (References 4 and 5). The three sets of growth rates are given in the table below.

Annual Increases in Mean Height and Mean Weight

Source	*Age Group*	*Boys*		*Girls*	
		Height (ins.)	*Weight (lbs.)*	*Height (ins.)*	*Weight (lbs.)*
Ref 3(*1*)	6	2¼	5	2¼	4
	11	2¼	7	2¼	9
	14	2½	14	1¼	10
Ref 4(*2*)	6	2.4	5.5	2.4	5.7
	11	1.9	7.9	2.4	10.2
	14	2.4	11.8	1.2	6.1
Ref 5(*3*)	6	2.4	5.4	2.4	5.6
	11	2.1	8.8	2.5	10.9
	14	2.6	12.3	1.0	6.1

(*1*) pp. 6—7 (*2*) pp. 66—7 (*3*) pp. 30—1.

In the case of Reference 3, annual growths were derived directly as the difference in mean heights and mean weights at the beginning and end of each year age-range.

Reference 4 relates to Sheffield school children in 1961. The data consist of mean heights and mean weights of children for all years of age. Mean ages are assumed, for the present purpose, to fall in the centre of each age range, e.g. the mean age for six year olds is taken as 6.5 years. The annual rate of increase in e.g. height of six year old boys is calculated as half the difference in height of boys aged seven and five years.

Reference 5 relates to school children in London in 1959. Measurements correspond to central mean ages (5.5 years, etc.) and growth rates have been obtained in the same way as from Reference 4.

On the assumption that measurements increase linearly with age over a period of two years the growth rates from all three sources are directly comparable. In fact, the method used for Reference 3 implies linear growth over one year only.

Although the three sets of growth rates refer to different populations of children, they appear to be in fair agreement. Such differences as exist are not critical in the present context since the discrepancies between the observed and adjusted mean ages are small (maximum 0.10 years). This being so, the adjustments used in this report are based on the first set of growth rates to maintain consistency with the earlier reports.

Example of use

For six year old boys from B neighbourhoods, the observed mean height is 45.70 inches, corresponding to a mean age of 6.41 years. Adjusted to a mean age of 6.50, this becomes :

$$45.70 + 2.25 \times (6.50 - 6.41) = 45.90 \text{ inches.}$$

APPENDIX D

Incidence of Obesity among Birmingham Children

1. General

During the past few years there have been suggestions that obesity among school children is on the increase (e.g. Ref. 7). With this in mind it was decided to use the 1962 Birmingham data on heights and weights to determine an objective criterion of obesity for boys and

girls aged 11 and 14. By applying this same criterion in a future survey it will be possible to compare the incidence of obesity among Birmingham children at the two dates.

The criterion of obesity for boys or girls in a given year of age takes the form of a limiting weight corresponding to each height (to the nearest inch). Any child whose weight exceeds the limiting weight for his height is defined as obese. Limiting weights for boys and girls aged 11 and 14 are given in the attached Table E, and it will be appreciated that such a table is very simple to use—an important factor when large numbers of children are involved.

2. Method

The method of obtaining the limiting weights is described below with reference to eleven year old girls.

The data were first grouped according to height in inch ranges ; e.g. the heights $54\frac{1}{2}$, $54\frac{3}{4}$, 55 and $55\frac{1}{4}$ in. comprise a single height group with central value $54\frac{7}{8}$ in. Extreme height groups (below $48\frac{7}{8}$ and above $62\frac{7}{8}$) which contained 10 or fewer results were combined. The mean weight for each height group is shown in the attached Table A, and mean weights (shown by crosses) for groups containing over 10 observations are plotted against height in the accompanying Figure. For heights between $50\frac{7}{8}$ and $61\frac{7}{8}$ in., the points follow a straight line relationship very closely, but there is some deviation at both extremes. The straight line shown was fitted to the data by the method of least squares. It gives an estimate of the "true" mean weight for given height in the range $50\frac{7}{8}$ to $61\frac{7}{8}$ in., and provides the predicted weights of Table A.

The criterion of obesity has been based on the following considerations. In general terms an obese child is one whose "bulk" is very much above the average for his height. Assuming that weight is proportional to "bulk", then for a given height, a child whose weight exceeds the mean weight by more than a specified amount may be described as obese. Also, the limiting weight must increase proportionately with the mean weight for different heights if it is to reflect the same degree of bulkiness over the whole range of heights. Hence the limiting weights are defined as a constant proportion of mean weight. The constant has been determined in such a way that approximately 5% of the children in a given age group are excluded as obese.

In the case of 11 year old girls the limiting weights are given by 1.285 x mean weight. For heights in the range $50\frac{7}{8}$—$61\frac{7}{8}$ in. estimates of mean weight are given by the fitted line. However 104 or 5% of the

2,160 girls have heights outside this range and there are insufficient numbers to give reliable estimates of "true" mean weights for individual inch ranges. Instead, results have been combined to give a single estimate of mean weight and the limiting weight is based on this. The mean weight of girls in height groups under $50\frac{7}{8}$ in. is 59.1 lbs., actually higher than the weight (58.5 lb.) predicted by the line for the $51\frac{7}{8}$ in. height group. In such a case, the limiting weight has been assumed to be the same as that corresponding to the lowest weight predicted by the line. The mean weight for height groups above $61\frac{7}{8}$ in. is 110.0 lbs. which is greater than the highest predicted weight (101.8 lbs.) and in this case the limit was taken as 1.285 x 110.0 or 141 lbs. approximately. In this way the criterion has been extended to cover all 2,160 girls. The resulting limit is shown in the Figure as a broken line.

The analyses for 11 year old boys and 14 year olds followed a similar course and the results appear in Tables B-D. In each case a fitted line was applicable to height groups accounting for at least 95% of the children. Extreme height groups were treated in a similar way to that desribed for the 11 year old girls.

For general use, limiting weights corresponding to height groups centred on integral values are given in Table E.

3. Results

Although the criterion of obesity was primarily devised to detect changes (if any) in the incidence of obesity in future years, it has also brought to light some interesting comparisons within the 1962 data.

Table E gives the following comparisons of mean weights and limiting weights for the four groups of children :—

(*i*) 11 year old boys and girls :

The mean weights for given height of 11 year old girls are almost the same as for boys, being identical at the lower end of the tabulated heights and rising to 2 lb. heavier at the upper end.

Limiting weights for each group were calculated to exclude approximately 5% of the children as obese. The resulting limiting weights for girls are greater than for boys. This means that a borderline obese boy is less fat than a borderline girl. Alternatively, the same limiting weight applied to boys and girls of a given height would result in a greater number of girls than boys being described as obese. In this sense there are more fat girls than boys.

(*ii*) 14 year old boys and girls :

The mean weights for given height of 14 year old girls are somewhat higher than for boys. At height 4 ft. 9 in. girls are on average 10 lb. heavier than boys while at 5 ft. 5 in. the difference is reduced to 7 lb. The comparatively wide range of heights tabulated for boys is a reflection of the greater variability in height of boys at age 14 as compared with the other groups of children.

As for 11 year olds, the limiting weights for girls are greater than for boys, relative to mean weight.

(*iii*) 11 and 14 year old boys :

It will be noted that there is a considerable overlap in the tabulated heights. At 4 ft. 9 in. the mean weights quoted are identical for both age groups. At greater heights the mean weights diverge, 14 year olds being 4 lb. heavier than 11 year olds at height 5 ft. 1 in.

The ratio of limiting weight to mean weight is the same for both age groups, viz : 1 · 22. Now in deriving the limiting weights it was only assumed that the ratio would be constant **within** each group. The fact that the same constant holds for both groups of boys lends strength to the original assumption.

(*iv*) 11 and 14 year old girls :

Here again there is a considerable overlap in the tabulated heights. At 4 ft. 9 in. the 14 year olds are on average 8 lb. heavier than 11 year olds. At 5 ft. 2 in. the difference rises to 11 lb. Thus for given height there is a far greater difference between the mean weights of girls aged 11 and 14 than between boys.

The ratio of limiting weight to mean weight is the same for both age groups, viz : 1 · 285. This is higher than for boys as a result of the greater variability in the weights of individual girls of a given height as compared with boys. The limiting weights for girls correspond to a greater degree of plumpness than do those for boys i.e. different standards apply in judging boys and girls.

The final columns of Tables A to D give the observed incidences of obesity in 1962 by neighbourhood group. The last column expresses the total incidence of obesity for each height group as a percentage of the total number of children in the height group. Bearing in mind that the percentages for extreme height groups are unreliable owing to the small numbers of children concerned, it can be seen that in

general the percentages are higher in the lower half of the table than in the upper. The tendency is most marked among 11 year olds (Tables A and C). The following incidences of obesity are obtained for children of above and below average height (excluding those children actually in the inch group containing the mean height of Table 1) :

	Group containing Mean Height (in.)	*% incidence of obesity*	
		Below mean	*Above mean*
Girls aged 11	$55\frac{7}{8}$	3.7	6.9
Girls aged 14	$61\frac{7}{8}$	4.9	5.9
Boys aged 11	$55\frac{7}{8}$	3.2	7.6
Boys aged 14	$63\frac{7}{8}$	4.3	5.1

For both groups of 11 year olds the percentages obtained for children of above and below mean height differ significantly (at the 5% level). At 14 years, the difference is no longer significant, though "in the same direction" as the previous result. Thus, if the limiting weights are assumed to be a realistic measure of obesity, it appears that obesity is more common among children who are of above average height for their age.

The overall percentage incidences of obesity by neighbourhood appear at the bottom of Tables A to D. These are as follows :

	% incidence of obesity by neighbourhood			
	A	*B*	*C*	*All*
Girls aged 11	5.5	5.0	7.1	5.3
Girls aged 14	3.7	5.4	6.7	5.3
All girls	4.2	5.3	6.9	5.3
Boys aged 11	7.2	4.9	5.6	5.2
Boys aged 14	5.6	5.2	4.3	5.1
All boys	6.2	5.1	4.7	5.1
All children	5.2	5.2	5.6	5.2

The figures do not show any consistent relationship between incidence of obesity and neighbourhood. The percentage incidences for all children do not differ significantly. However among girls there is a significantly higher incidence of obesity in C than in A neighbourhoods. Among boys, the incidence is higher but not significantly higher in A than in C neighbourhoods.

TABLE A

Incidence of Obesity among 11 year old Birmingham Girls—1962

Height group (ins.)	*Observed Mean Weight (lbs.)*	*Predicted (1) Weight (W, lbs.)*	*Limiting (2) Weight (lbs.)*	*Incidence of Obesity*				*Total ch'dren in height group*	*% Incidence of Obesity*
				A	*B*	*C*	*Total*		
$47\frac{7}{8}$ or less	54.25	—	75	1	3	0	4	60 (16, 16, 28)	6.7
$48\frac{7}{8}$	63.97								
$49\frac{7}{8}$	59.03								
$50\frac{7}{8}$	59.99	58.46	75	0	0	1	1	54	1.9
$51\frac{7}{8}$	63.96	62.40	80	0	2	1	3	98	3.1
$52\frac{7}{8}$	67.31	66.34	85	1	7	1	9	178	5.1
$53\frac{7}{8}$	69.02	70.28	90	1	5	1	7	223	3.1
$54\frac{7}{8}$	74.02	74.22	95	1	7	1	9	276	3.3
$55\frac{7}{8}$	77.28	78.16	100	2	8	1	11	256	4.3
$56\frac{7}{8}$	81.03	82.10	105	2	11	3	16	294	5.4
$57\frac{7}{8}$	86.52	86.04	111	0	12	4	16	215	7.4
$58\frac{7}{8}$	91.20	89.98	116	0	15	2	17	198	8.6
$59\frac{7}{8}$	94.08	93.92	121	1	6	2	9	139	6.5
$60\frac{7}{8}$	98.32	97.86	126	1	4	0	5	76	6.6
$61\frac{7}{8}$	101.67	101.80	131	1	1	0	2	49	4.1
$62\frac{7}{8}$	109.70	—	141	1	4	0	5	44 (31, 13)	11.4
$63\frac{7}{8}$ or more	110.83								
TOTAL OBESE				12	85	17	114		
TOTAL CHILDREN IN NEIGHBOURHOOD				220	1701	239		2160	
% INCIDENCE OF OBESITY				5.5	5.0	7.1			5.3

Footnotes : (1) $W=3.94$ H—141.99 for height (H) in the range $50\frac{7}{8}$ to $61\frac{7}{8}$ in.

(2) Given by 1.285 W for height (H) in the range $50\frac{7}{8}$ to $61\frac{7}{8}$ in.

See text for extreme values.

TABLE B

Incidence of Obesity among 11 year old Birmingham Boys—1962

Height group (ins.)	*Observed Mean Weight (lbs.)*	*Predicted (1) Weight (W, lbs)*	*Limiting (2) Weight (lbs.)*	*Incidence of Obesity*				*Total ch'dren in height group*	*% Incidence of Obesity*
				A	*B*	*C*	*Total*		
49⅞ or less	62.99	—	72	2	2	1	5	44	11.4
50⅞	60.51	58.64	72	0	1	0	1	42	2.4
51⅞	64.52	62.36	76	1	3	1	5	93	5.4
52⅞	66.54	66.08	81	0	1	2	3	164	1.8
53⅞	70.07	69.80	85	2	5	2	9	260	3.5
54⅞	72.36	73.52	90	2	5	0	7	334	2.1
55⅞	76.13	77.24	94	3	11	2	16	353	4.5
56⅞	81.02	80.96	99	0	17	1	18	322	5.6
57⅞	84.85	84.68	103	3	12	1	16	244	6.6
58⅞	88.65	88.40	108	1	12	2	15	159	9.4
59⅞	93.05	92.12	112	0	7	1	8	100	8.0
60⅞	97.78	95.84	117	2	3	1	6	57	10.5
61⅞ or more	100.13	—	122	1	7	0	8	57	14.0
TOTAL OBESE				17	86	14	117		
TOTAL CHILDREN IN NEIGHBOURHOOD				236	1741	252		2229	
% INCIDENCE OF OBESITY				7.2	4.9	5.6			5.2

Footnotes : (*1*) $W = 3.72\,H - 130.62$ for height (H) in the range 50⅞ to 60⅞.

(*2*) Given by 1.22 *W* for height (H) in the range 50⅞ to 60⅞.

See text for extreme values.

TABLE C

Incidence of Obesity among 14 year old Birmingham Girls—1962

Height group (ins.)	*Observed Mean Weight (lbs.)*	*Predicted (1) Weight (W, lbs.)*	*Limiting (2) Weight (lbs.)*	*Incidence of Obesity*				*Total ch'dren in height group*	*% incid-ence of Obesity*
				A	*B*	*C*	*Total*		
54⅞ or less	91.47	—	111	0	4	1	5	23	21.7
55⅞	88.35	86.18	111	0	2	0	2	17	11.8
56⅞	91.07	90.57	116	0	1	0	1	44	2.3
57⅞	93.79	94.96	122	0	3	0	3	87	3.4
58⅞	98.88	99.35	128	0	6	0	6	177	3.4
59⅞	104.70	103.74	133	0	18	1	19	367	5.2
60⅞	107.58	108.13	139	5	12	4	21	453	4.6
61⅞	112.06	112.52	145	4	19	3	26	586	4.4
62⅞	117.72	116.91	150	3	25	5	33	542	6.1
63⅞	120.84	121.30	156	2	18	3	23	437	5.3
64⅞	126.02	125.69	162	2	16	3	21	319	6.6
65⅞	129.65	130.08	167	1	6	2	9	173	5.2
66⅞ or more	130.74	—	168	1	8	0	9	138	6.5
TOTAL OBESE				18	138	22	178		
TOTAL CHILDREN IN NEIGHBOURHOOD				491	2544	328		3363	
% INCIDENCE OF OBESITY				3.7	5.4	6.7			5.3

Footnotes : (1) W=4.39 H—159.11 for height (H) in the range 55⅞ to 65⅞ in.

(2) Given by 1.285 W for height (H) in the range 55⅞ to 65⅞ in.

See text for extreme values.

TABLE D

Incidence of Obesity among 14 year old Birmingham Boys—1962

Height group (ins.)	*Observed Mean Weight (lbs.)*	*Predicted (1) Weight (W, lbs.)*	*Limiting (2) Weight (lbs.)*	*Incidence of Obesity*				*Total ch'dren in height group*	*% incidence of Obesity*
				A	*B*	*C*	*Total*		
55⅞ or less	76.67	—	94	0	3	0	3	53	5.7
56⅞	82.09	80.88	99	0	1	1	2	48	4.2
57⅞	87.63	85.52	104	1	6	1	8	80	10.0
58⅞	90.32	90.17	110	0	1	0	1	112	0.9
59⅞	93.86	94.82	116	4	5	0	9	175	5.1
60⅞	99.87	99.47	121	0	11	3	14	210	6.7
61⅞	102.43	104.12	127	2	4	1	7	296	2.4
62⅞	108.37	108.77	133	4	9	1	14	379	3.7
63⅞	114.25	113.42	138	2	24	4	30	398	7.5
64⅞	118.59	118.07	144	2	13	3	18	381	4.7
65⅞	123.01	122.72	150	1	14	5	20	356	5.6
66⅞	127.62	127.37	155	4	11	3	18	297	6.1
67⅞	132.06	132.02	161	1	7	0	8	210	3.8
68⅞	136.47	136.67	167	0	5	0	5	136	3.7
69⅞	138.71	141.32	172	1	3	0	4	68	5.9
70⅞	145.71	145.97	178	0	2	0	2	41	4.9
71⅞ or more	149.03	—	182	1	1	1	3	28	10.7
TOTAL OBESE				23	120	23	166		
TOTAL CHILDREN IN NEIGHBOURHOOD				410	2326	532		3268	
% INCIDENCE OF OBESITY				5.6	5.2	4.3			5.1

Footnotes : (1) W=4.65 H—183.60 for height (H) in the range 56⅞ to 70⅞ in.

(2) Given by 1.22 W for height (H) in the range 56⅞ to 70⅞ in.

See text for extreme values.

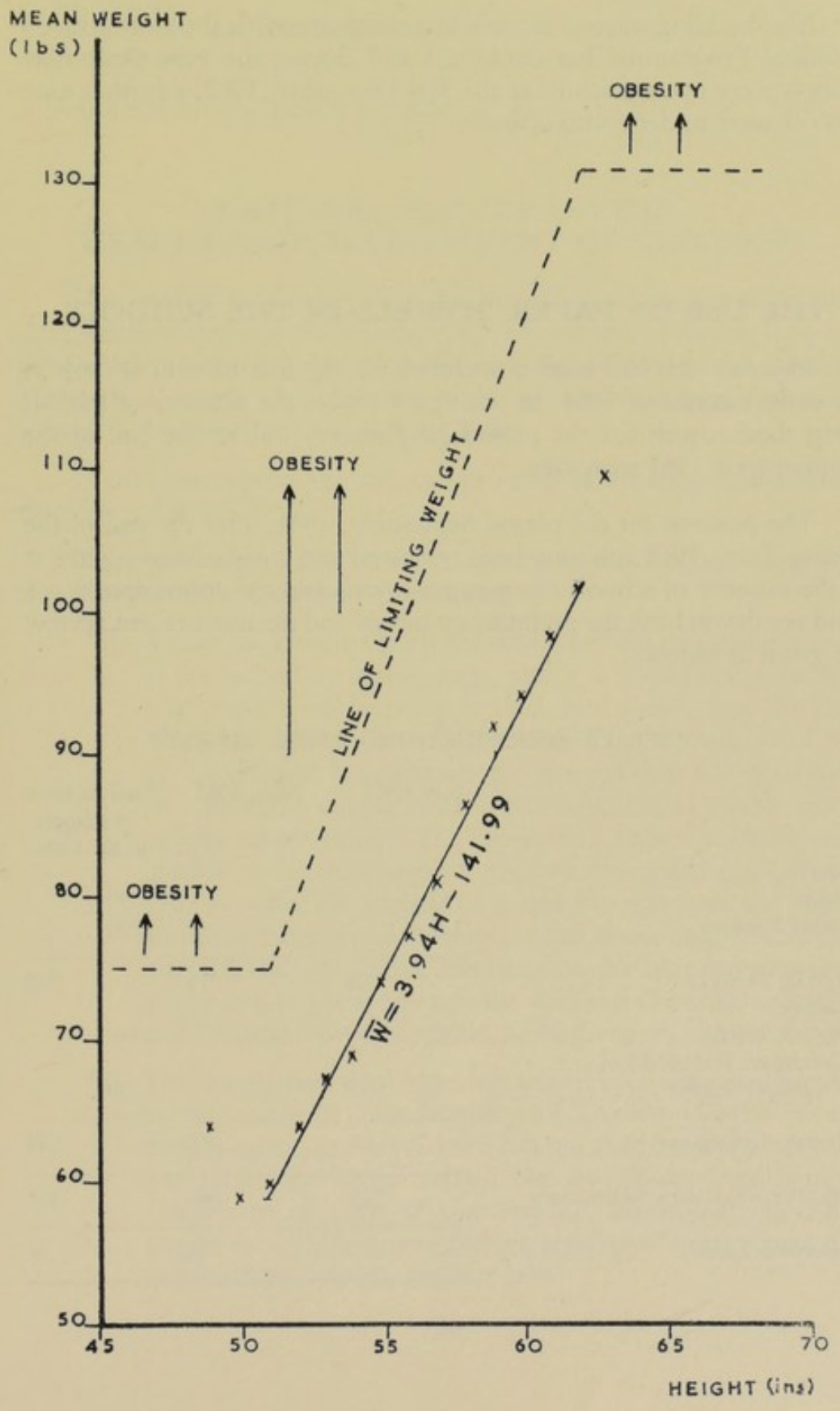
TABLE E

Limiting Weights for Obesity Study

Boys aged 11			*Girls aged* 11		
Height to nearest inch	*Mean Weight*	*Limiting Weight*	*Height to nearest inch*	*Mean Weight*	*Limiting Weight*
4 ft. 3 in. or less	4 st. 3 lb.	5 st. 2 lb.	4 ft. 3 in. or less	4 st. 3 lb.	5 st. 6 lb.
4 ft. 4 in.	4 st. 7 lb.	5 st. 7 lb.	4 ft. 4 in.	4 st. 7 lb.	5 st. 11 lb.
4 ft. 5 in.	4 st. 11 lb.	5 st. 11 lb.	4 ft. 5 in.	4 st. 11 lb.	6 st. 2 lb.
4 ft. 6 in.	5 st. 0 lb.	6 st. 2 lb.	4 ft. 6 in.	5 st. 1 lb.	6 st. 7 lb.
4 ft. 7 in.	5 st. 4 lb.	6 st. 6 lb.	4 ft. 7 in.	5 st. 5 lb.	6 st. 12 lb.
4 ft. 8 in.	5 st. 8 lb.	6 st. 11 lb.	4 ft. 8 in.	5 st. 9 lb.	7 st. 3 lb.
4 ft. 9 in.	5 st. 11 lb.	7 st. 1 lb.	4 ft. 9 in.	5 st. 13 lb.	7 st. 8 lb.
4 ft. 10 in.	6 st. 1 lb.	7 st. 6 lb.	4 ft. 10 in.	6 st. 3 lb.	7 st. 13 lb.
4 ft. 11 in.	6 st. 5 lb.	7 st. 11 lb.	4 ft. 11 in.	6 st. 6 lb.	8 st. 4 lb.
5 ft. 0 in.	6 st. 9 lb.	8 st. 1 lb.	5 ft. 0 in.	6 st. 10 lb.	8 st. 9 lb.
5 ft. 1 in.	6 st. 12 lb.	8 st. 6 lb.	5 ft. 1 in.	7 st. 0 lb.	9 st. 0 lb.
5 ft. 2 in. or more	7 st. 2 lb.	8 st. 10 lb.	5 ft. 2 in.	7 st. 4 lb.	9 st. 5 lb.
			5 ft. 3 in. or more	7 st. 12 lb.	10 st 1 lb.
Boys aged 14			*Girls aged* 14		
Height to nearest inch	*Mean Weight*	*Limiting Weight*	*Height to nearest inch*	*Mean Weight*	*Limiting Weight*
4 ft. 8 in. or less	5 st. 7 lb.	6 st. 10 lb.	4 ft. 8 in. or less	6 st. 3 lb.	7 st. 13 lb.
4 ft. 9 in.	5 st. 11 lb.	7 st. 1 lb.	4 ft. 9 in.	6 st. 7 lb.	8 st. 5 lb.
4 ft. 10 in.	6 st. 2 lb.	7 st. 7 lb.	4 ft. 10 in.	6 st. 12 lb.	8 st. 11 lb.
4 ft. 11 in.	6 st. 7 lb.	7 st. 13 lb.	4 ft. 11 in.	7 st. 2 lb.	9 st. 2 lb.
5 ft. 0 in.	6 st. 11 lb.	8 st. 4 lb.	5 ft. 0 in.	7 st. 6 lb.	9 st. 8 lb.
5 ft. 1 in.	7 st. 2 lb.	8 st. 10 lb.	5 ft. 1 in.	7 st. 11 lb.	10 st. 0 lb.
5 ft. 2 in.	7 st. 7 lb.	9 st. 2 lb.	5 ft. 2 in.	8 st. 1 lb.	10 st. 5 lb.
5 ft. 3 in.	7 st. 11 lb.	9 st. 7 lb.	5 ft. 3 in.	8 st. 5 lb.	10 st. 11 lb.
5 ft. 4 in.	8 st. 2 lb.	9 st. 13 lb.	5 ft. 4 in.	8 st. 10 lb.	11 st. 3 lb.
5 ft. 5 in.	8 st. 7 lb.	10 st. 5 lb.	5 ft. 5 in.	9 st. 0 lb.	11 st. 8 lb.
5 ft. 6 in.	8 st. 11 lb.	10 st. 10 lb.	5 ft. 6 in. or more	9 st. 5 lb.	12 st. 0 lb.
5 ft. 7 in.	9 st. 2 lb.	11 st. 2 lb.			
5 ft. 8 in.	9 st. 7 lb.	11 st. 8 lb.			
5 ft. 9 in.	9 st. 11 lb.	11 st. 13 lb.			
5 ft. 10 in.	10 st. 2 lb.	12 st. 5 lb.			
5 ft. 11 in	10 st. 7 lb.	12 st. 11 lb.			
6 ft. 0 in. or more	10 st. 9 lb.	13 st. 0 lb.			

Relationship between Height and Mean Weight.

11 year old Birmingham Girls, 1962.



SCHOOL BUILDINGS

Additional accommodation has been provided in respect of Major and Minor Building Programme schemes to an approximate total value of £593,951 at 20 schools.

The building of new schools in accordance with the Committee's Building Programme has continued and during the year three new schools were opened whilst at the 31st December, 1962, a further nine schools were under construction.

THE USE OF PAPER TOWELS IN THE SCHOOLS

Paper towels had been introduced for the first time in schools in the early months of 1961. In last year's report the number of schools using these towels for the period 1st January 1961 to the end of the summer term 1961 was given.

The position for the period September, 1961, until the end of the Spring Term 1962 has now been reviewed and comparative figures as to the number of schools using paper towels and the consumption per child per day in both the preliminary survey and the more recent review are given as follows:

NUMBER OF SCHOOLS USING PAPER TOWELS

	July, 1961		May, 1962		Total number of schools in the City	
Primary						
Infant	52		58		79	
Other Primary	132		161		236	
TOTAL PRIMARY		184		219		315
Secondary						
Non-Selective	52		58		110	
Grammar, Technical and Comprehensive	9		9		39	
TOTAL SECONDARY		61		67		149
TOTAL PRIMARY AND SECONDARY		245		286		464
Special Schools	—		3		28	

Average Consumption of Towels per Child per Day

Primary	July, 1961	May, 1962
Infant	1.2	1.2
Other Primary	0.98	0.8
Secondary		
Non-Selective	1.0	0.8
Grammar, Technical and Comprehensive ..	0.95	0.85
Special Schools	—	1.0
Overall average consumption per child per day	1.03	0.93

NATIONAL SURVEY OF THE HEALTH AND DEVELOPMENT OF CHILDREN

The enquiry into the growth, height and development of children born between 3rd and 9th March, 1946, was continued during the year. The work of the follow-up study was transferred to the Medical Research Council Unit for the study of environmental factors in mental and physical illness in April 1962.

In previous reports the aim and progress of the longitudinal study have been described.

The following relates to the summary in the Annual Report of the Population Investigation Committee.

"(a) A start has been made on the analysis of the material gathered at the secondary school stage, and it is hoped that a preliminary report will be ready in 1963. In the meantime the local education authorities had been asked to say which of the survey children have left school, changed their school or gone to a full-time course in a further educational establishment or into employment. The answers to these questions were needed for the next stage of this enquiry, initiated in October 1962 in which the schools were asked to report on the pupils' academic records and the pupils asked about their educational interests and aspirations. Evidence on the educational aspects of this enquiry was given to the Robbins Committee in 1961 and further information has been given to them recently.

(b) The youngsters who have left school are being interviewed in the autumn. The Ministry of Labour Central Youth Employment Executive have offered their assistance and the interviews are being carried out by Youth Employment Officers in all parts of the country. Information is being sought on the job history and job training of these youngsters and on their attitudes to their jobs.

(c) A satisfactory return of information about the court appearances of children born during the survey week has now been arranged by the Home Office, and it is estimated that by the time they reach 17 (in March 1963) some 250 of the 4,500 survey children still living in Great Britain will have been before the courts. At this point a report will be prepared in which the history of delinquency will be set against what is known of the children from other sources, their emotional adjustment, their progress at school, job stability and job satisfaction among other things".

SCHOOL MEALS SERVICE

DINNERS SUPPLIED TO CHILDREN JANUARY TO DECEMBER, 1962

	Free	*Part-Paid*	*Paid*	*Total*
Nursery	16,624	1,097	306,381	324,102
Primary	827,631	40,033	6,316,505	7,184,169
Secondary	334,495	13,601	2,810,622	3,158,718
Comprehensive	10,372	644	244,479	255,495
Grammar and Technical ..	45,789	3,268	2,683,777	2,732,834
Special Schools	31,109	549	302,045	333,703
	1,266,020	59,192	12,663,809	13,989,021

DAILY NUMBER OF CHILDREN HAVING DINNERS 1962

	Secondary	*Primary*
January	33,710	39,024
February	32,325	38,868
March	32,209	39,267
April	31,813	38,721
May	30,513	40,749
June	27,607	40,001
July	27,726	38,951
September	36,374	38,787
October	36,091	40,197
November	35,578	40,426
December	34,133	39,896

DAILY NUMBER OF MEALS SERVED DURING HOLIDAYS

	Normal Meals	*Holiday Meals*	*Percentage*
Easter	71,850	1,233	1.7
Whitsuntide	67,608	1,443	2.1
August	74,205	1,148	1.5
Christmas	74,029	783	1.05

Number of children eligible for Free Meals at December 1962 8,467.

Number of children taking meals, as per Ministry of Education on a given day in October, 1962 : 77,228. Percentage, 47.19. The corresponding national percentage was 56.1.

MILK IN SCHOOLS SCHEME

Number of children taking Milk as per Ministry of Education on a given day in October 1962 : 148,245. Percentage : 86.07. The corresponding national percentage was 82.5.

SCHOOL CANTEENS

Dr. Lemin reports :—

"Visits have been paid to various canteens during 1962. Conversations have been held with the staff and matters of hygiene raised and discussed. There is no doubt that in general the staff of the kitchens and the canteens in the School Meals Service are alive to the importance of maintaining the highest possible standards of care in their work, both with regard to personal hygiene and the cleanliness of the kitchens and utensils.

Several opportunities have arisen enabling me to meet trainees in various grades during their course of training. Meetings have consisted of lectures and discussions in all that is relevant in the school hygiene procedure. In the discussions there was always great evidence of the appreciation of the need of maintaining high standards not only by each individual but as a team.

It cannot be emphasised too often how big a factor the school meal safely and interestingly served can be in the life of the child".

MINOR AILMENTS AND INSPECTION CLINICS

A full account of the purpose and functions of these clinics was given in the report for 1959. The reduction in the number of sessions at which the medical officers attended was noted in the report given last year.

Scabies

There were 248 cases treated during the year compared with 203 cases in 1961 and 109 in 1960. It is of some interest to note that 140 cases were treated in 1959 and 75 cases in 1958. As a contrast it can be recalled that 599 cases were treated in 1949. The numbers fell rapidly in the following years to 207, 147, 149, 68, 96, 68, 65 and 65 for the years 1950, 1951, 1952, 1953, 1954, 1955, 1956 and 1957.

Ringworm of the Scalp

The number of cases 'known to have been dealt with' is one compared with seven in the previous year and five in 1960. This does not give a true picture of the incidence, however, as it is difficult to ascertain the complete number. Yet the trend is indicative.

Ringworm of the Body

The numbers treated this year were nine compared with fourteen in 1961 and twenty-eight in 1960.

Diseases of the Skin

There has been a slight increase in the number of cases of impetigo this year, 560 compared with 467 last year, but a decrease in the number of other skin conditions, 5,408 compared with 6,784.

DEFECTS OF EAR, NOSE AND THROAT

Mr. Norman L. Crabtree, the Ear, Nose and Throat Surgeon, reports :—

"Throughout the year the Aural Clinic has continued to work at full capacity in the assessment, treatment and follow-up of hearing problems in Birmingham school children.

The continuation of the school audiometric survey has continued to be extremely effective, although still only covering one-third of the total primary school population. Because of this there are many children with hearing defects whose detection is unduly delayed, but the service is to be improved by the appointment of an additional nurse and it is hoped that later this may become fully comprehensive. This will place an additional strain upon the Aural Clinic which is, however, welcomed because we feel that this is a highly valuable function of the School Health Service.

We have viewed with some concern the detection of an increasing number of cases of secretory otitis in young school children requiring hospital treatment to ensure that no permanent hearing damage results.

From time to time questions arise which show that the proper function of the Aural Clinic is not always fully understood. Cases of recurrent upper respiratory infection though they may be missing a great deal of schooling are not an educational problem. They should properly be referred to the appropriate hospital service. Quite a high proportion of the cases which my colleague and I do see require hospital treatment. We feel we must offer them accommodation in the hospital beds which are allocated to us, should they so desire it. Here they compete for hospital accommodation with cases which are referred directly to our hospital clinics.

No case is examined without the approval of the general practitioner concerned. Unfortunately, although permission is always sought, we have not hitherto been able to keep him properly informed of the subsequent progress of the patient. We are now grateful to have been provided with a secretarial service which enables us to overcome this difficulty and to make him more aware of the problems involved. This offers him the opportunity to give us additional information of which we may not be aware and also to seek other advice should he wish. As our own hospital accommodation becomes more congested he may well find that he can obtain more rapid treatment elsewhere. We do, however, try to give the best possible hospital treatment to children who are educationally handicapped and so far thanks to the help and encouragement we receive from our own hospital services we have been able to maintain a high standard of service both in quality and in time.

The management of cases of permanent deafness is different and difficult. With an increased understanding of the new opportunities for the deaf child over the past fifteen years there is need for change in the mechanism by which they are helped and managed. With the many changes which are necessary each change must follow a process of considered thought and to some extent of trial and error. Earlier ascertainment by the Child Welfare Clinics combined with earlier assessment, diagnosis and training at the Children's Hospital offers opportunities of better placement in school, together with much greater potential attainments. This increases the need for a greater flexibility of approach in the educational possibilities which are open to a child handicapped by deafness.

In addition to our two special schools we are in need of partially hearing units in ordinary schools for those children who are able to be integrated with normal hearing children, and an improvement in

our management of children with defective hearing who have additional mental or physical handicaps".

AUDIOMETRIC SURVEY

The examination in the schools of the hearing of five year old children by pure-tone sweep audiometry was continued during the year. Any other child where there was some doubt about the hearing could also be brought forward by the teacher.

The methods and standards used were described in previous reports.

Number of children tested	4,543
Number of children failed	332
Number of children failed one ear	216
Number of children failed both ears	116
Number of children failed and already having treatment at	
Hospital	39
Family doctor	7
Aural Clinic	11
Number of parents contacted (mostly by home visits)	282
Number of children referred to :	
Aural Clinic	256
Family doctor	14
School Medical Officer	5
Number of children failed to attend pure-tone test	34
Pure-tone tests at clinic	222
Number of children failed pure-tone test	176
Failed test, referred to :	
Aural Surgeon	164
General Practitioner	5
For re-test in clinic	7
Number of children seen by Aural Surgeon	120
Number of children referred for treatment :	
Hospital	89
Hearing aid and auditory training	2
Other	1
No treatment, review later	33
No treatment required, discharged	2
Number of children reviewed by Aural Surgeon	91
Number of children referred for treatment :	
Hospital	53
Family doctor	2
Other	1
No treatment required, review later	33
No treatment required, discharged	2
Failed to attend for Aural Surgeon	14

142 children referred to hospital :	
Tonsils and Adenoids	39
T's. & A's. and A.W.O.	6
T's. & A's. and Myringotomy	8
T's. & A's. and Routine Sinus Treatment	1
Adenoidectomy	19
Adenoidectomy & Myringotomy	16
Adenoidectomy & A.W.O.	1
A.W.O.	9
Myringotomy	28
Myringotomy and Routine Sinus Treatment	1
Removal of Nasal Polypus and Routine Sinus Treatment	1
Routine treatment to Ear	3
Removal of wax under anaesthetic	1
Removal of Aural Polypus	2
Myringoplasty	1
Tympanoplasty	3
Cortical Mastoidectomy	2
Radical Mastoidectomy	1

TONSILS AND ADENOIDS

In general, conservative treatment is adopted, but careful regard is paid to the cases where operative treatment appears to be necessary. Following consultation with the child's family practitioner, recourse is now made to the most convenient hospital for any operation which may be required.

Complete information, however, relating to the total number of children who received operative treatment is not available but it is known that 1,656 children were operated on for tonsils and adenoids in 1962.

EYE DEFECTS

The number of children examined in the routine age groups who suffered from defective vision (excluding squint) was :

Age Group Inspected (By Year of Birth)	*Number Examined*	*Number found to have defective vision*	*Percentage*
1958 and later	1,434	15	1.04
1957	5,516	103	1.86
1956	5,581	176	3.15
1955	1,838	104	5.65
1954	396	37	9.34
1953	282	37	13.12
1952	2,815	328	11.65
1951	8,505	1,080	12.69
1950	3,182	379	11.91
1949	236	54	22.88
1948	3,401	502	14.76
1947 and earlier	12,670	2,110	16.65
TOTAL	45,856	4,925	10.74

OPHTHALMIC TREATMENT

Mr. H. W. Archer Hall reports :—

"I have pleasure in submitting my report on the refractions treated at the Great Charles Street Clinic during the year ended 31st December, 1962, as follows :—

STATISTICS FOR REFRACTION CLINICS 1962

Myopia	58
Myopic Astigmatism	30
Hypermetropia	32
Hypermetropic Astigmatism	89
Mixed Astigmatism	14
No. glasses ordered	60
Referred to Hospital	3"

Mr. Mark Tree reports :—

"I have pleasure in appending a review of my work at the ophthalmic clinic, Great Charles Street, during the year of 1962.

The analysis of cases refracted shows only slight variation from year to year :—

Moderate Myopia and Astigmatism	19%
High Myopia	1%
Hypermetropia and Astigmatism	50%
Mixed Astigmatism	4%
Squint Cases	7%
No spectacles necessary	19%

I have as usual prepared a separate report dealing with the children in schools for the partially sighted, but I wish here to emphasize that, although the number of cases of Retro-lental Fibroplasia has declined, due to more enlightened treatment of premature infants, there has been no such reduction in children with congenital cataracts due to German Measles in the mothers.

It should be possible to prevent the occurrence of these serious defects, by augmenting the supply of protective Gamma Globulin for mothers who have been in contact with cases of German Measles. Such supplies could be obtained by organising the collection of antiserum from convalescent cases at infectious diseases units, such as that at the Little Bromwich Hospital.

With regard to the significance and outlook in children with refractive errors, we have come to discard the old theory of Cohn, who stated, in reports issued in 1867—92, that myopia was due to stretching of the globe and distortion by the recti muscles following excessive close work. Professor Sorsby and his colleagues in reports

to the Medical Research Council have pointed out that the normal growth enlargement of the eye is compensated for by a rearrangement of the optical components in order to maintain average normality. This mechanism comprises flattening of the curvatures of the cornea and lens.

It is only when this compensating mechanism is disturbed that a tendency to myopia emerges. Our present belief is that the main factor concerned is hereditary or genetic, and we are sceptical of the influence of environmental factors.

I was recently presented with an interesting example. I was consulted by a young woman and her mother who both had very high myopia. The young woman had been a pupil at a School for the partially sighted years ago but her vision with spectacles was almost of normal standard. The mother in her fifties had an almost identical error, and similar good vision with spectacles, and no sign of gross pathological changes. We do not yet know how the normal compensating mechanism is effected, but there is probably some local autonomous factor in each eye. I have noticed that in many children the increase of myopia varies in each eye. One eye only may show an increase for a time, the other remaining stationary, and later the second eye will increase while the first remains stationary. I have also seen a number of children with one normal eye and the other moderately myopic both remaining stabilised. It is difficult to know whether spectacles should be ordered in these cases. I usually prefer to suspend judgement, but insist on following them up, bearing in mind the possibility of a lazy (amblyopic) highly myopic eye in adult age.

I have also started to collect a series of cases where there has been a progressive increase of myopia in one eye with much less change in the other eye. I hope to report on these on a future occasion. To date, therefore, it seems to me that hereditary influences plus a local factor in each eye determine the onset and evolution of myopia. Environmental and nutritional influences seem to have no place in the development of those cases of myopia where no gross pathological changes are discernible.

There is still further research needed in this important subject and the school clinics provide the necessary opportunity".

Dr. L. Marx reports :—

"During 1962 I saw 791 children during 90 sessions at the Benacre Street and Maas Road Clinics.

Conditions found were as follows :—

Myopia including simple myopia, simple myopic astigmatism, and compound myopic astigmatism	211
Hypermetropia including simple hypermetropia, simple and compound hypermatropic astigmatism	418
Mixed Astigmatism	39
No glasses required	79
Referred to hospital	20
Optic atrophy	1
Coloboma Iridis	1 "

Dr. N. Walkinshaw reports :—

"During the year I have examined 695 children.

The refractive error in both age groups in order :

	Under Ten Percentage	*Over Ten Percentage*
Hypermetropic Astigmatism	32.7	33.2
Myopic Astigmatism	4.0	12.5
Mixed Astigmatism	1.0	3.3
Strabismus (all forms)	14.6	6.3
Hypermetropia	20.0	10.8
Myopia	10.8	19.4
Anisometropia	1.6	5.0
Amblyopia	1.2	1.1
Normal	14.1	8.4

The following cases were also noted :

1 Spastic, mentally handicapped	Aet over 10
1 High Myopia, Sub normal, referred to Special School	Aet under 10"

Dr. S. W. K. Norris reports :—

"In the year under review the clinics have been remarkably well attended. Several pairs of identical twins have been re-examined and the close correlation of their refractive errors confirms Professor Sorsby's Medical Research Council Report.

There is little doubt that refractive errors are, in the main, genetically determined and that the environment of the individual child has no effect.

An earnest endeavour is being made to get parents to appreciate that a 'lazy' and squinting eye is not an asset to their child, and can in a large proportion of cases be cured if early treatment is instituted".

Dr. B. C. Curwood reports :—

"During the year I examined 944 children, with approximately the same distribution of refractive errors as before.

The familiar nature of these conditions is striking, for among my quite small sample I found six families each with three children showing similar relatively gross errors, and two families each with three squinters, and one family of 4, all of convergent type, and also there was one family of 3 with congenital nystagmus. I also found two brothers aged 6 and 5, both with marked serous retinopathy, vision in all four eyes was 6/24, and serial fundus photographs show no objective change after 11 months".

SCHOOL DENTAL SERVICE

Mr. D. Glen Thomson, Principal School Dental Officer, reports :—

"**Staff**

The number of full-time equivalent dental officers on the 31st December, 1962 was 22.8, a decrease of .6 dental officers. There was a loss of full-time officers and an increase in part-time dental officers. This is a national trend and there are a number of reasons for this state of affairs. A number of graduates join the service until such time as they build up their own practice. Others, derive considerable satisfaction working with children but can only spare one or two sessions a week from their own practice as working in the school service involves them in financial loss. There has been an increase in women dental officers and this service is particularly suitable for them as it is possible to vary their sessions with family commitments.

Full-time appointments

Mrs. Goodburn 12.3.62

Resignations

Mr. Neal 30.9.62

Death

Dr. Tomanek 11.4.62

Treatment

Of the 151,471 children inspected in 339 of the 521 schools, 103,175 were found to require treatment, 87,509 were referred for treatment and 24,648 had their treatment completed. In addition, 18,494 casual patients attended the clinics and received treatment. These children attended on 13,234 further occasions to have the necessary treatment completed. The total number of attendances at school clinics was 87,213, an increase of 1,901 attendances.

21,244 permanent and 46,411 temporary teeth were extracted. There was an increase of 39 permanent teeth extracted and a decrease of 946 temporary teeth extracted. All these teeth were not extracted

because of dental disease. The Orthodontists refer children for extractions as part of the orthodontic treatment and as a result 808 permanent and 540 temporary teeth were extracted during the year. There was an increase of 374 sessions devoted to saving teeth and the total number of fillings inserted in permanent teeth reached a new record total of 50,492, an increase of 1,546 fillings. It is a controversial question whether time should be spared to fill deciduous teeth when there are not enough school dentists even to examine all the children once a year ! A special request from a parent is however never refused, and any child who has had temporary teeth filled previously either privately or at the Public Health Department is offered further fillings if necessary. 1,705 fillings were inserted in temporary teeth, an increase of 510 fillings.

The ratio of permanent teeth filled to permanent teeth extracted was two, which is unchanged from the previous year.

The school population is 177,293 and it was only possible to provide routine dental inspection for 151,471 children. Unfortunately, it was not possible to provide annual inspection for all areas. It is most important that children should be inspected at least once a year and certain children with a high caries rate, every three or four months. Unfortunately, the number of dental officers does not permit this. The average time between school inspections was twelve months with the exception of Slade Road, where it was 26 months and Benacre Street and Sparkhill where it was 19 months.

The experiment of the General Dental Council of training dental ancillaries at New Cross General Hospital to work for local authorities under the supervision of a dentist may enable many more young children to receive dental treatment. An ancillary worker will be shared by the School Dental Service and the Health Department in 1963 and, in due course, her value can be assessed. Again, to make the best use of available dental officers, evening sessions are to be made available in the Slade Road area. This venture is in the nature of a pilot scheme and may be extended to other parts of the City. An additional surgery is to be provided at Slade Road Clinic and the children attending this Clinic can be offered a much more satisfactory service.

One of the most important features of the School Dental Service is that it is an educational instrument by which children and their parents can be taught to appreciate the importance of dental health. It is most unfortunate that many parents of school children do not arrange for their children to visit a dentist regularly and ensure they receive all the preventive treatment necessary. School dental inspections are not restricted to selective groups but all children are inspected. A number of these children attend a family dentist but a visit from the school dental

officer, by creating an interest in dental matters, serves to remind parents to seek treatment for their children. It is most disappointing to find that there are still parents who refuse to accept fillings for their children. This hard core has persisted over the years in spite of all efforts. They will not accept fillings for their children but readily accept extractions or will wait until the teeth ache, and only then, have the teeth extracted.

Dental Disease

The medical profession has over the years lessened the danger associated with most infectious diseases. Many children today are stronger, taller and heavier than those seen when the school medical service commenced but their dental condition is less satisfactory. Children at five years of age have, on average, D.M.F. of 6 (decayed, missing or filled teeth). It is not uncommon to see school leavers with many carious and septic teeth. These children have consistently refused all offers of regular dental treatment and have remained unmoved by efforts to encourage them to take care of their teeth. They attend the clinics requesting the extraction of all carious teeth and to be provided with dentures before leaving school.

The cause of dental disease is not fully known but the most important factor is the presence in the mouth of food debris on which bacteria feed. These bacteria produce an acid and enzymes which break down the enamel of the teeth causing dental caries. Dental caries can be largely prevented if attention is given to diet and care of the teeth becomes a habit at an early age. It is never too soon to begin active measures for dental health. The average child commences school with 20 deciduous teeth and during school life a further 28 permanent teeth erupt. Indeed, with the earlier maturity in girls it is not uncommon to find some having erupted their wisdom teeth at 15 to 16 years. The greatest advance in dental health would be to convince parents, teachers and children that eating between meals of sweets and confectionery is most harmful to their teeth. The most dangerous period for the teeth is within minutes of eating sweets or refined carbohydrates. A toffee eaten each half hour during the day can cause far more dental harm than eating a large quantity at once. Children are spending more and more on sweets, iced lollies and fruit drinks. Television advertisements compete in allure to tempt children to buy these products and unfortunately this kind of propaganda is on the increase.

Each meal should include some food which will require chewing and exercise the teeth and jaws. If sweet sticky foods are included in a meal then a good rule is to finish the meal with fibrous food, such as celery, apples or raw vegetable. The majority of Birmingham special

schools, day and residential, have arranged for a slice of apple or raw carrot, in some cases both, to be supplied at the end of the school meal. Children very soon develop a taste for raw carrot and a number of parents have been induced to provide them at home. Food debris should be removed from the teeth by the aid of a toothbrush after each meal. This is not always possible but the teeth should be cleaned after breakfast and before going to bed. It is important that the gums are brushed as regular brushing helps to make the gums firm and healthy.

The correct use of a toothbrush is most important and posters are displayed in many infant schools showing the best way to brush the teeth. Instruction in oral hygiene is given to children at the chairside when attending for treatment. The two copies of the film "Lets Keep our Teeth" are in constant use and may be obtained on application to the Education Office. Dental Posters supplied by the Dental Board and Oral Hygiene Service are displayed in most schools. The colour and design of many of the new posters are excellent and they provide a striking reminder of dental care. The Principal School Dental Officer is responsible for a series of lectures to teachers attending the City of Birmingham Training Course for Handicapped Children under the title "Dental disease and its effect on the well being of handicapped children". This has stimulated their interest and they return to their schools with a new appreciation of the value of dental health.

The School Health Service has always been concerned with prevention of illhealth, but the School Dental Service is almost a reparation service and most of its efforts are directed to the treatment of established disease.

Biscuits, buns and sweets are still sold in schools. The policy of approaching head teachers individually has continued and a number have been persuaded to sell raisins, salted nuts, potato crisps and cheese biscuits. These foods all require some chewing and are self-cleansing. The sale of apples has increased considerably but unfortunately it is seasonal as they become too expensive when in short supply. The City of Birmingham Public Health Department held a Dental Health Week in August which was very well attended. The audience were mainly those in close contact with parents or children. It was opened by the Chairman of the Health Committee and speakers from different branches of dentistry contributed talks which must have been most helpful to all concerned in the dental health of children. The Society of Medical Officers of Health were responsible for an excellent letter to all local authorities and it may be useful to quote : 'Public enlightenment is an important factor in improvement of the Nation's teeth and oral hygiene instruction, in a restricted field, offers at least some measure of relief for school dentistry. Education, with such an object in view,

must aim at promoting an attitude of self help, based on the knowledge that the great majority of individuals, by conscientiously adhering to a few simple commonsense principles, really can reduce substantially their own and their children's liability to dental decay with its pain and inconvenience'.

The Council of Central Counties Branch of the British Dental Association formed a Dental Health Committee composed of two members of the University staff, members of the Representation Board and the Principal School Dental Officer. They provide lecturers for organisations, such as W.V.S., Parent Teachers' Associations, Rotary Clubs and Maternity and Child Welfare Centres.

Finally, fluoridation of water. Fluoride occurs naturally in almost all water supplies. In different parts of the world the concentration varies from a trace to 14 parts per million or more. The highest natural concentration in Great Britain is about six parts per million and in Birmingham water the concentration is about .05 parts per million. To be fully effective fluoride must be absorbed continuously during the whole period of tooth formation and calcification. The teeth must erupt and be exposed to the risk of caries for a reasonable period before any reliable assessment can be made of caries prevention. For the few years that fluoridation has been in operation in the study areas of Watford, Kilmarnock and parts of Anglesey, therefore, its full effects can now be observed in only those children up to the age of 5, who have had fluoride all their lives. The reduction in dental caries amounted to 66 per cent in the three-year old child, 57 per cent in the four-year old child and 50 per cent in the five-year old child. There was a three fold approach to the safety of fluoridation by doctors practising in the areas who could find no evidence of harm. The study of vital statistics found no indication that fluoride, at the levels encountered in British waters had any effect on mortality. Specific investigations by the Ministry of Health, Public Authorities and many other bodies found no ill effects from the addition of one part per million of fluoride to drinking water.

I have a niggling doubt whether the publicity given to fluoridation of water supplies may not have an unexpected result. Already there is evidence that some parents permit their children to eat as many sweets as they like because they are using fluoridated toothpaste. This mistaken attitude must be strongly countered by an intensive effort to stress the importance of regular dental hygiene in the schools. Fluoride is *not* a magic potion that will banish dental decay overnight however much we believe in its value to protect the teeth of the next generation. Regular visits to the dentist and the practice of oral hygiene are still most important.

Anaesthetic Scheme

The panel of Medical Anaesthetists continues to render valuable help to the School Dental Service and it is with much pleasure I take this opportunity to express my gratitude to them for their assistance. The majority of them are occupied in general practice and they attend clinics scattered over the City. In many instances this involves travelling considerable distances in the busy traffic and they arrive punctually even in the most inclement weather. Their presence does much to reassure the most apprehensive parent and their experience is most valuable where there is a doubt of the desirability of giving anaesthetic in certain heart or chest conditions. There were 1,375 gas sessions during the year, a decrease of 90 sessions. A total of 25,628 general anaesthetics of nitrous oxide and oxygen were administered, a decrease of 1,874 anaesthetics. The actual number of anaesthetics averaged 18.6 for each session throughout the year. The problem of broken appointments is still acute and an average of 25% are not kept. This percentage varies and school holidays, time of the year and the area, all have an influence on attendance at the clinics.

The policy of replacing old or worn equipment has continued and a Walton No. 5 gas apparatus was provided for Harborne Clinic. This apparatus incorporates a number of safety features and is designed to give an even, smooth anaesthesia, which is so necessary in treating children.

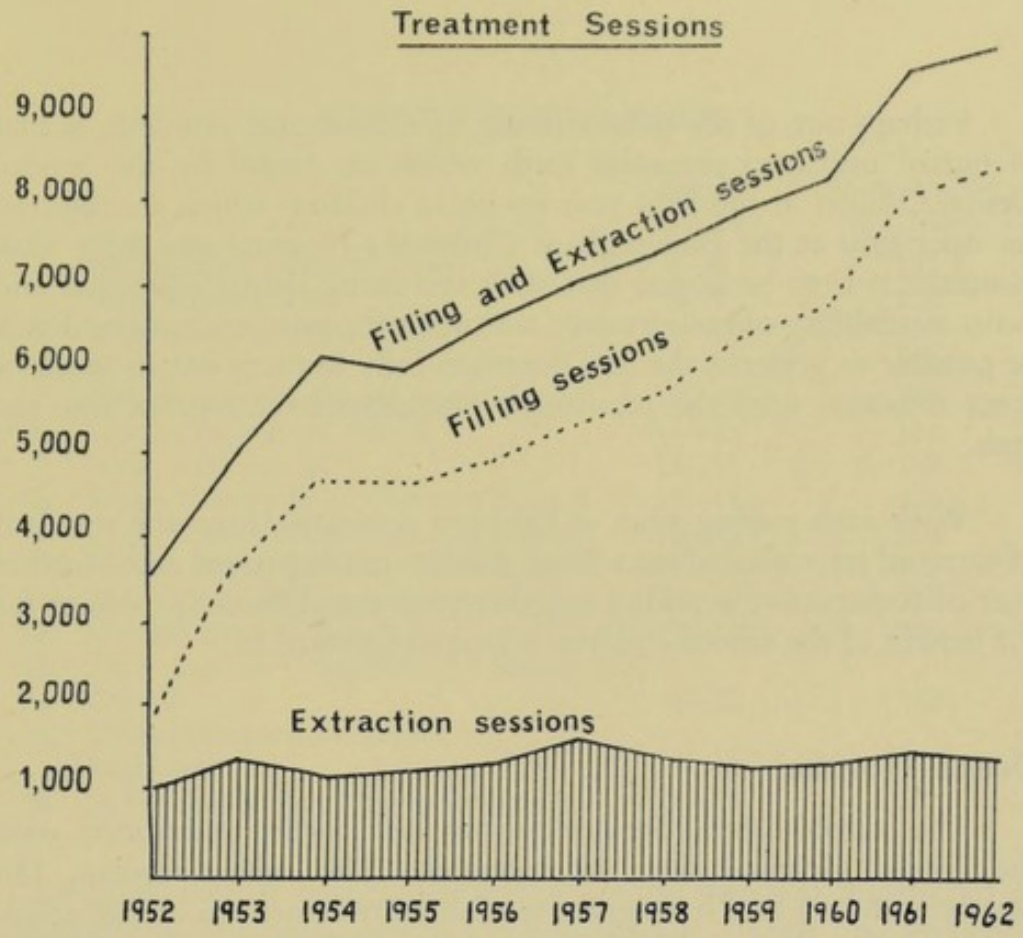
The Children's Hospital

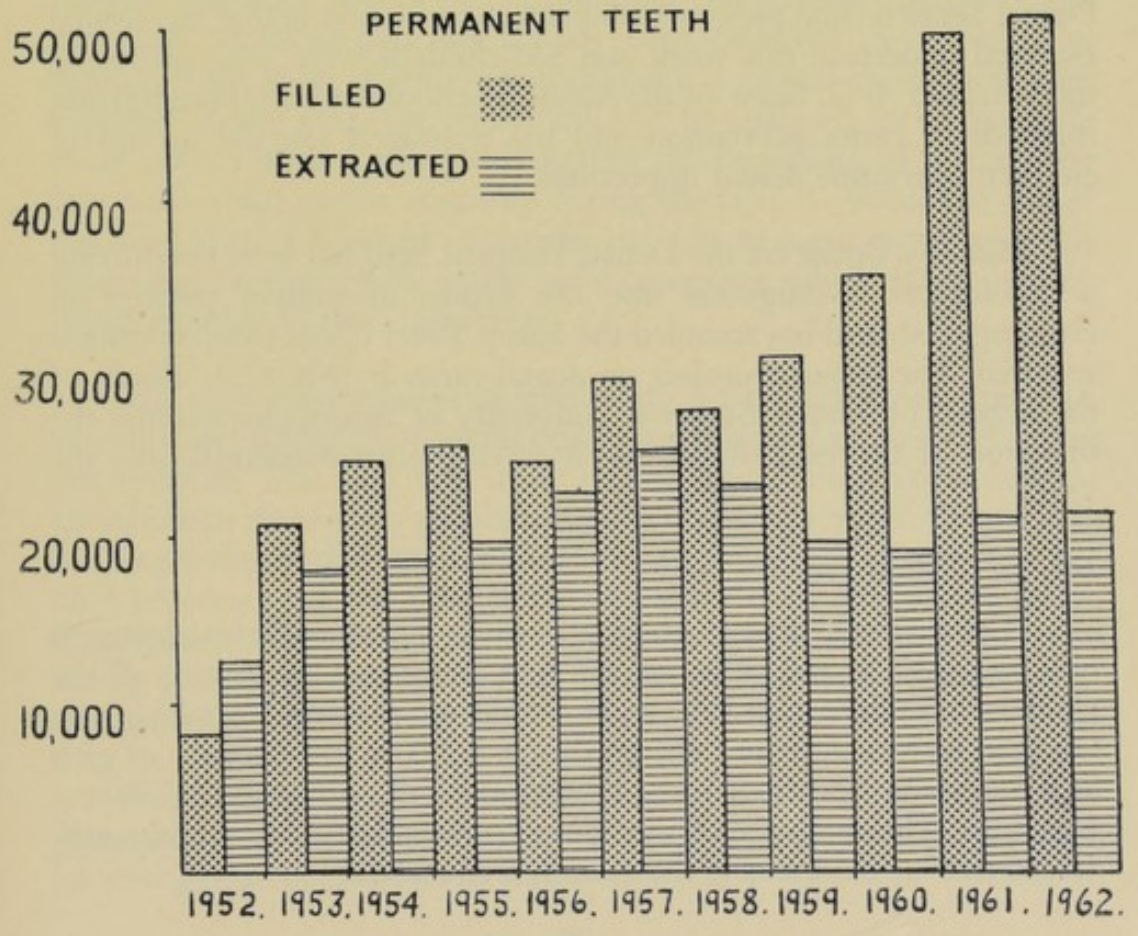
The close liaison and happy relations which exist between the School Dental Service and the Children's Hospital has been of immeasurable help during the year. Children referred to the Hospital are unsuitable for treatment at the clinics owing to their physical condition, medical history, or they require surgical treatment. All children requiring haematological investigation for known or suspected blood conditions are referred to the Hospital before dental extractions.

127 children were referred to the Children's Hospital and were seen and treated where necessary by Mr. Geoffrey Hoggins, Consultant Dental Surgeon.

Mr. Geoffrey Hoggins reports :—

'1962-1963 has been another highly satisfactory year from the point of view of co-operation between the School Dental Service and the Birmingham Children's Hospital. A large number of cases requiring advice or surgical treatment have been referred and indeed many of these have been of tremendous clinical interest.


Treatment Sessions
9,000
8,000
7,000
6,000
5,000
4,000
3,000
2,000
1,000
Filling and Extraction sessions
Filling sessions
Extraction sessions
1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962


PERMANENT TEETH
FILLED
EXTRACTED
50,000
40,000
30,000
20,000
10,000
1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962.

Perhaps one of the most striking of the surgical problems is that of buried impacted premolar teeth which are found by the School Dental Officers in the 8-14 year group of children which are referred for operation at the Birmingham Children's Hospital and Selly Oak Hospital. It is to be hoped that with increasing dental education and easier availability of conservative treatment for primary molars, it will be possible to preserve the first dentition fully to carry out its work of space retention until the permanent premolars have erupted into the arch.

With each passing year, it has been noticeable how the standard of care and treatment of the school children has improved and a further year of constructive working together with our different problems for the benefit of the school children is looked forward to'.

Dental Hospital

The School Dental Service has worked in close association with the Dental Hospital since its inception. The superintendent, Dr. Mitchell, and his staff have given specialised treatment to certain children and during the year 196 children were treated. This ready collaboration is much appreciated by all dental officers employed in the School Dental Service. The present arrangement for *x* rays is that the Dental Hospital undertake this work and 530 children were *x*-rayed during the year. Mr. J. G. Shaw of the Medical School has been investigating methods of caries prevention and has examined selected groups of children at routine dental inspections.

Miss Joy Butler on the Dental Hospital Staff has been conducting a histological investigation into the depths of gingival pockets on erupting teeth and has attended the Sheep Street Clinic to select clinical material. The research project on dental caries by Mr. C. L. Brady of the School of Dental Surgery, University of Birmingham under the direction of Professor Alexander MacGregor has continued over the year.

Mr. C. L. Brady reports :—

'The research project on dental caries and fluoride toothpaste is now nearing the end of its second year. Since my last report, all the children have been seen for a second time and the number taking part has been increased, from 1,850 to almost 2,500, by the addition of girls and boys from Public Schools in Birmingham and Malvern, Worcestershire, This means that our sample now consists of a fairly representative cross-section of the various social strata.

SCHOOLS TAKING PART

		Ages of Children	*Total Number of Children*
1.	Nelson Street Primary School	5—9	143
2.	Greet Primary School	5—9	212
3.	Hope Street Secondary School ..	11—12	187
4.	Nansen Girls' School	11—12	158
5.	Four Dwellings Girls' and Boys' School	11—13	274
6.	Warren Farm Boys' School	11—13	114
7.	Hodge Hill School	11—13	158
8.	King's Norton Boys' Grammar School	11—14	328
9.	Byng Kenrick Girls' Grammar School	11—13	120
10.	Bartley Green Girls' Grammar School	11—13	172
11.	The Abbey Girls' School, Malvern ..	8—14	96
12.	Malvern Boys' College	13—15	196
13.	The Downs Preparatory School, Colwall	8—12	58
14.	Hallfield Preparatory School, Edgbaston	7—10	101
15.	St. Philip's Grammar School for Boys ..	11—13	131

All the data is being collected in a code which is transferred to punch-cards. This enables us to sort and tabulate quickly and efficiently on the Hollerith and Power Samas machines in the Department of Medical Statistics and at the Birmingham Regional Hospital Board. Although sufficient data has already been collected to enable us to determine the value of a fluoride toothpaste as an anti-caries agent over a period of one year, the results will not be analysed for at least one more year. This is a safe-guard against the possibility of introducing bias on the part of the examiner during the trial. Towards the end of the third year, it is hoped to transfer the data to paper tape for speedy processing of the results in the new computer which is, at present, being installed in the University.

The children are showing enthusiasm for the experiment and we, in return, are trying to maintain this by showing slides and a film about our research. The film was made during the Winter Term and has already been shown at a number of the schools. It is hoped to take it to the remainder during the actual dental examinations at school to the final processing of the data at the Department of Medical Statistics. The Head Mistress of Bartley Green Grammar School for Girls' very kindly gave us permission to take the shots of the dental examination at her school.

Once again, I should like to thank all the Head Masters, Head Mistresses and Teachers of the schools taking part for the help they have so willingly given me during the past year.

I am also grateful to Dr. E. L. M. Millar and Mr. D. Glen Thomson for their enthusiastic support'.

Handicapped Children

The dental condition of these children is of extreme importance and extractions could be hazardous in certain groups of children. Every effort is made to save the teeth and avoid extractions. Residential schools are inspected twice a year and all the children are offered full comprehensive treatment. The treatment is normally carried out either on school premises or at the clinics, but should there be a medical history or physical disability arrangements are made for the treatment to be carried out either at the Children's Hospital or at Selly Oak. A certain number of children have their fillings completed under endotracheal anaesthesia.

During the year 2,570 children were inspected, 1,079 were found to require treatment and 876 were referred for treatment. 465 children received treatment within the school service and attended for treatment on 701 occasions. 197 permanent and 409 temporary teeth were extracted. 431 fillings were inserted in 390 permanent teeth. Medical anaesthetists administered 254 general anaesthetics of nitrous oxide and oxygen. 87 sessions were devoted to inspection and treatment of these children.

Orthodontics

This branch of children's dentistry deals with the irregularities of the teeth and jaws. Parents are increasingly aware of the value of orthodontic treatment and the waiting list for treatment has again increased in spite of careful selection of suitable cases by the School Dental Officers.

Mr. Edgar Breakspear submitted the following report :—

'As envisaged in last year's report, the emphasis in 1962 was on treatment, and 439 removal appliances were fitted as against 293 in the previous year. The number of sessions worked showed a substantial increase, as did the total attendances (6,115 as against 4,781).

This increase in output was undoubtedly due to the additional help given by Miss D. J. Butler, whose entry to the Department was recorded in last year's report. Unfortunately, from our point of view, Miss Butler left us in October 1962, to take up a full-time hospital appointment. Whilst we wish her well in her new sphere, it must be borne in mind that any changes in the staffing position are bound to be reflected sooner or later in the figures for services offered or provided.

Unless further trained staff can be obtained it is inevitable that fewer patients can be seen and that the waiting lists must grow longer. For example, the 'vetting' list to which reference was made last year, was in fact reduced completely by March 1962, but has since risen again nearly to its former position. It should be pointed out however that this trend was noted even before October, and is probably due in part to an increase in the number of cases referred to the Department for advice and treatment. The problem of meeting increased demand with depleted staff is one which must cause concern to members of the staff as well as unavoidable disappointment to the public'.

Mr. Norman Norris submitted the following report :—

'During the year under review there has been a small but welcome increase in the amount of treatment provided for those children in most need. More sessions were worked, there was an increase in the number of cases for whom it was possible to commence treatment, whilst the number of appliances fitted rose considerably. In spite of this however it is perhaps significant that the number of children awaiting treatment has increased substantially.

Unfortunately, the staff has been depleted by the departure of Miss J. Butler, in October 1962, so that it will probably prove impossible to equal last year's figures during the current year. Two solutions of the problem of keeping abreast with the very considerable volume of work spring to mind. The first is to recruit more staff of the necessary calibre. The second is to institute a rather more selective method of initial selection of patients who may be regarded as likely to benefit most from a course of orthodontic treatment. A possible third solution might be to allow the treatment of the more straight forward type of case to be undertaken, under supervision, by the Public Dental Officers who may have had some experience in the field of orthodontics.

Since last year the amenities of the department have been improved. The original large room has been divided by a partition so that there is increased privacy, and on those occasions when there are two Dental Surgeons in attendance there is a minimal amount of interference with the work.

One cannot, of course, allow this opportunity to pass of placing on record the very commendable efforts of our nursing staff, who besides coping most efficiently with the routine of the department also have to deal with a constant stream of enquiries.

I think it can be said that the department is looking forward to the next twelve months with a certain amount of quiet confidence'.

ANNUAL RETURN — ORTHODONTIC DEPARTMENT

	1962	*1961*
Number of cases commenced	223	183
Number of cases carried forward for previous year	105	155
Number of cases completed	137	150
Number of cases discontinued	89	78
Number of cases treated by appliances	594	567
Number of removable appliances fitted	439	293
Number of fixed appliances fitted	9	13
Number summoned for treatment	7,156	5,686
Total number of attendances	6,115	4,781
Number actually treated	3,444	2,873
Number under observation	2,671	1,908
Number of *x* rays taken	1,055	1,030
Number of sessions worked	559	437
Average attendance per session	10.93	10.94

Dental Laboratory

The dental laboratory has been fully extended during the year and again it has been found necessary to send orthodontic and prosthetic work to a technician to the profession. Mr. Aldred, the technician-in-charge, has been responsible for the construction of orthodontic appliances, many of which are of a most intricate design and call for a high degree of skill. He was successful in obtaining the advanced Certificate in Orthodontics from the City and Guilds, London, at a recent examination.

SUMMARY OF WORK

Orthodontic	
Models cast	1,123
Study models supplied	630
Fixed appliances	4
Removable appliances	385
Repairs to appliances and additions	70
Dentures	
Part upper	390
Part lower	24
Full upper	5
Full lower	2
Repairs to Dentures	88
Gold Inlays	7
Dowel Crown	1

Other Operations

A detailed analysis is given below of other operations performed during the year. The varied nature of the work performed by these miscellaneous operations is apparent. They are time consuming but they form an integral part of the School Dental Service. Children

attending the clinics with parents for advice present a valuable opportunity for the dentist to meet parents and advise on oral hygiene, diet, etc. Dental treatment of children does not of necessity mean that there is a lack of variety in the work in comparison with general practice, as with a larger staff, the scope of the work has been widened with benefit to the children. During the year there were 456 root fillings, 7 gold inlays and 1 dowel crown. There was again an increase in scalings, which now number 3,619. It is hoped to provide within the establishment of the School Dental Service a dental hygienist who would relieve the dental officer of much of this work.

Permanent Teeth	*1962*	*1961*	*1960*	*1959*
Advice	9,681	9,210	9,012	6,302
Zinc Oxide Dressing	3,201	3,405	3,852	3,614
Root Fillings	456	475	55	49
Gum Treatment	292	309	409	272
Stoning and Trimming	2,495	3,202	668	480
Scaling	3,619	3,509	2,595	1,891
Impressions, Bites and Try-ins	756	691	784	612
TOTAL	20,500	20,801	17,375	13,220

Temporary Teeth	*1962*	*1961*	*1960*	*1959*
Advice	549	857	631	876
Silver Nitrate	220	285	42	182
Dressings	501	575	1,014	962
TOTAL	1,270	1,717	1,687	2,040
Total number of Dentures for for School Children	521	514	495	450

One child was fitted with full upper and lower dentures.

Clinics

The standard of accommodation and equipment provided for school clinics is most important. It may affect the recruitment of young dental officers who are trained in the use of modern equipment and if not supplied may dissuade them from joining the service. Surgeries, waiting rooms and lavatories should be made as attractive as possible for the children and for the working conditions of the staff.

No new clinics were opened during the year, but the provision of an additional surgery at Slade Road has been approved.

Finally, I would like to take this opportunity to express my thanks to all dental officers, full-time and part-time for their loyal co-operation and for the high standard of work which has been maintained throughout the year. The dental surgery assistants have again made their invaluable contribution to the efficiency and smooth running of the School Dental Service.

It is a pleasure to express my thanks to head teachers and teachers for their help and great interest they have shown in the service. Many teachers cheerfully give far more assistance and help than I have a right to expect and the difference this makes to the attitude of both parents and children towards the dental service is considerable and always gives additional pleasure to treat children from these schools. The dental clerks and clerical staff have been, as always, most helpful and unremitting in their application to the good of the School Dental Service."

ASTHMA CLINIC

Dr. J. Morrison Smith, Chest Physician, reports :—

"During the year 110 new patients were seen, there were 296 first recalls, 4,278 consultations in all and 258 home visits. These figures are much the same as in previous years.

Steroids in Asthma

Our experience in the long term use of the cortisone group of drugs in the relief of severe asthma was reported in a paper at the Fifth European Congress of Allergy in Basle, Switzerland in October 1962.

The 'Atopic Diseases'

This name was given by a Dr. Coca to the group of naturally occurring allergic diseases in man with a strong hereditary background. The principal members of this group are atopic eczema, asthma and hay fever. The family background and the association of these conditions is common knowledge. Schwartz (1952) studied the hereditary background of groups of asthmatic patients and concluded that asthma is an inherited disease, that a genetic relationship exists between asthma and vasomotor rhinitis, eczema and hay fever, that a less certain relationship between asthma and certain other diseases is possible. Schwartz considered that asthma is probably inherited as a dominant character, but only manifests itself in disease in about 40% of those who inherit the tendency from both sides of the family.

Of 968 asthmatic children seen at the Clinic 245 (26%) were noted to have eczema also. The distribution among the children with asthma was roughly 3 boys to each girl whereas among those with eczema it was only 2 boys to each girl.

A striking difference has been noted in the age of onset of eczema, asthma and hay fever. Whereas 88% of the children with eczema began to have this in the first year of life, only 24% of cases of asthma began in the first year of life, and no cases of hay fever. By the age of six, however 83% of cases of asthma had begun, but only 30% of those who developed hay fever began to suffer symptoms before they were six.

These marked differences in age of onset of these conditions so clearly linked on a hereditary basis must be caused by environmental factors and the development of allergy to different known factors. Eczema is often associated with food allergy which probably occurs in infancy due to immature digestive ability and failure to break down foreign protein sufficiently during digestion. Asthma and hay fever are normally associated with inhaled allergens and the late onset of hay fever would easily be explained on the basis of a short intermittent exposure to the allergen (grass pollen) for only two months in each year.

Research in progress

A start has been made in a follow-up study of children first seen about ten years ago. This type of study is unusual because of its difficulty. Most of these children are adults now, many are married and it is a difficult and tedious job to find out how they are now. It is, however, important to find out what happens to children who have asthma. More information on this subject is needed.

The research committee of the British Tuberculosis Association is engaged, among many other subjects, in a study of the effects of hypnosis together with auto-hypnosis over a long period on asthma. The study covers all ages and a number of centres throughout the country are taking part. It is hoped to come to some final conclusion about the value of hypnosis. Previous experience in Birmingham (Smith and Burns 1960) was not encouraging but several children in the Clinic are taking part in this national study which is probably the largest and most comprehensive investigation ever attempted in this field.

References :

SMITH J. M. and BURNS C. L. C. (1960)
Brit. J. Dis. of the Chest. *54* 78.
SCHWARTZ, Michael (1952)
Acta Allergol. Suppl. II.

Acknowledgements :

I wish to express my thanks for the help and support of the Nursing Staff of the Clinic and for the kindness and care with which they have carried out their duties to the patients throughout the year. I would also like to express my thanks for the help of the Senior School Medical Officer, Dr. H. M. Cohen".

ORTHOPAEDIC DEFECTS

Mr. F. G. Allen reports :—

"I have been greatly disturbed to hear that there is a possibility that the routine examination of school children may be curtailed.

During the thirty or more years that I have been associated with the Birmingham School Medical Service, there has been a gradual change largely related to a higher standard of living and improved hygiene. Whereas formerly the type of case referred for consultation presented a gross physical defect easily recognisable and demanding definitive treatment, now, one sees only minor abnormalities some of which can be regarded as acceptable and coming within the range of normality. Such cases are readily treated, and often simple re-assurance suffices. Among them however, are concealed a small group who may have had no symptoms whatever and whom only the trained eye can recognise. Left untreated, the condition deteriorates and what at one time was a simple problem responding satisfactorily to simple treatment becomes transformed into one of great difficulty with no prospect of complete cure and therefore likely to lead to lifelong disability.

Three examples will suffice. Among a group of minor foot deformities will be a few cases of pes cavus. Here a slight increase in the height of the longitudinal arch giving rise to no symptoms whatever will be disregarded or even looked upon as an improvement on the average. Yet this deformity can increase insidiously and lead to real disability. Early treatment presents no problem. When symptoms arise possibly in early adult life it is too late. Hallux valgus a deformity on the increase with modern fashions, can be prevented from becoming an all too common source of misery. The third example is the rounded back of late childhood and early adolescence. Again completely symptomless and easily confused with a postural deformity it responds well to early treatment but cannot be corrected at all a year or two later. If it remained symptomless this might not matter but backache in middle life, sometimes severe, usually follows.

If we are to catch all these cases and this must be done, how is it to be achieved? A few general practitioners undertake periodic routine examinations of children in their practices but these are a very small minority. A few parents insist on having the health of their children checked from time to time. These again are a minority. Only a system of frequent periodic examination can discover these cases. The Education Authority is in the unique position of having the opportunity and the facilities to do just this. During the last decade, many of Birmingham children have been rescued from certain lifelong ill health and an even higher standard of living will not make this work unnecessary since we still do not know the basic causes. Children attending schools under an Education Authority such as that in Birmingham have hitherto enjoyed advantages denied to those going to public and private schools. Is this advantage soon to be lost?

The work of the School Medical Officer in discovering the cases detailed above is greatly appreciated, and the co-operation and interest of the physiotherapists has been most encouraging."

The following is an analysis of this work of the Orthopaedic Division during the past year :—

Summary and analysis of the cases treated in the Physiotherapy Service

Reason for Attendance	*Number of Children Treated*	*Number of Attendances*
Remedial Exercises	2,207	26,049
Massage	152	998
Radiant Heat	180	722
Electrical Treatment	10	194
Other Purposes	517	1,911
TOTAL	3,066	29,874

Defect	*Number Treated*	RESULT OF TREATMENT				
		Remedied	*Much Improved*	*Slightly Improved*	*Unchanged*	*Discontinued Treatment*
1	2	3	4	5	6	7
Spinal Curvature ..	280	97	107	39	20	17
General Muscular Debility	257	38	98	79	23	19
Various forms of Paralysis	17	1	1	6	9	—
Deformities of the Foot	1,284	351	430	290	96	117
Asthma	322	63	140	73	25	21
Bronchiectasis ..	28	—	8	17	—	3
Bronchial Catarrh ..	245	33	112	65	15	20
Injuries to Limbs ..	57	42	4	2	5	4
Wry Neck, etc. ..	54	29	9	7	4	5
TOTAL ..	2,544	654	909	578	187	206

Total number of Individual Children treated during the year — *2,376.*

A summary and analysis of the cases seen by the Orthopaedic Surgeon is given below :—

1.	Postural Defects :	
	Kyphosis	35
	Scoliosis	12
	Lordosis	2
2.	Defects in extremities :	
	(a) Foot and Ankle :	
	Pes cavus	10
	Hallux valgus	38
	Hallux rigidus	1
	Valgoid ankles	17
	Knock knee	14
	Hammer toes	7
	Pes planus	15
	Tight tendo achilles	5
	Wasting of calf muscles	1
	Tibial tension	1
	Dislocation 5th toe	1
	(b) Arm and shoulder girdle	
	Torticollis	14
	Sprengel's shoulder	1
3.	Congenital defects :	
	Muscular dystrophy	2
	Depressed sternum	1
4.	Disease :	
	Poliomyelitis	1
	Osteochondritis	18
5.	Other conditions :	
	Sprained ankle	2
	Wry neck	1
	Spastic hemiplegia	2
	Schlatter's disease	1
	Rheumatoid arthritis	2 "

ULTRA VIOLET RAY TREATMENT

	Number Treated	*Cured or Much Improved*	*Improved*	*No Better*	*Ceased to Attend Before Completion of Cure*
Debility	682	130	393	39	120
Rheumatism	8	1	5	1	1
Chorea	40	—	25	6	9
Bronchitis and Asthma ..	380	69	242	25	44
Nasal Catarrh, etc. ..	479	121	262	29	67
Enlarged Glands ..	13	2	10	—	1
Otorrhoea and Deafness..	30	7	19	2	2
Blepharitis and Conjunctivitis ..	37	8	19	2	8
Anaemia	18	4	12	—	2
Chilblains	12	3	7	—	2
Alopecia	16	—	10	3	3
Impetigo	4	—	2	—	2
Other skin troubles ..	227	41	126	15	45
TOTALS	1,946	386	1,132	122	306

CHIROPODY CLINIC

Mr. H. Wildbore reports :—

"The work of the department continues to follow its established pattern. In many ways 1962 has been its most successful year.

Fashion shoes with pointed toes, particularly those without laces or straps, continue to have a deforming effect on the teenage feet of girls and boys. There is a depressing tendency for younger children too, to wear such shoes. Stretch nylon socks and stockings also cramp and deform many toes. It does seem desirable that some action should be taken to protect young people from injury to the feet which may cause pain and expense throughout life".

Analysis

Condition	*Number of Cases*
Plantar warts—single	105
Plantar warts—multiple	92
Warts on hands, etc.	11
Corns	68
Interdigital corns	4
Callous	33
Onychocryptosis	10
Involuted nails	9
Onychophosis	4
Onychogryphosis and onychauxis	8
Pes cavus	2
Pes valgus	40
Hallux valgus	68
Hallux flexus	1
Hammer toes and mallet toes	3
Clawed and retracted toes	12
Burrowing toes	93
Overlapping toes	22
Painful heels	3
Acute foot strain	6
Anterior metatarslgia	1
Varus 5th toe	1
Sub-ungual exostosis	1
Bursitis	1
Hyperidrosis	2
Erythema pernio	4
Tinea pedis	5
Foreign body	1
	610

Total number of new cases	388
„ „ „ re-examinations	1,427
„ „ „ attendances	1,815
„ „ „ treatments	2,724
„ „ discharged	409
„ „ referred for Physiotherapy, etc.	8
„ „ still under treatment	177
„ „ of cases of verruca discharged	203
„ „ of attendances before discharge	1,015
Average attendances per case of verruca	5

Summary of foot inspections carried out at schools during 1962

Fourteen sessions were held at four Primary Schools and children aged 7—9 years were seen.

	Girls	*Boys*
Number of children seen	299	285
Conditions observed :		
Pes valgus	147	144
Pes cavus		2
Hallux valgus	68	41
Hallux varus	53	51
Other conditions of 1st segment	11	5
Hammer toes	1	2
Burrowing toes	113	114
Overlapping toes	2	5
Other conditions of lesser toes	7	9
Corns and callous	29	21
Onychocryptosis	—	2
Thickened nails	23	8
Other nail conditions	1	2
Verrucae	4	3
Tinea pedis	1	1
Footwear :		
Short	74	40
Inadequate in other ways	51	7
Referred for treatment :		
Chiropody	93	81
Physiotherapy	5	3

SPEECH THERAPY

Miss E. S. Sprayson, Senior Speech Therapist, reports :—

"Miss Mary Barker was appointed to a full-time post in September. Mrs. Pamela Norman was appointed for one session a week in January and Mrs. Gwenyth Errey for one session a week in December.

Mrs. Mavis Hampson resigned from her part-time post in April. Mrs. Maureen Allen resigned from her full-time post in August and is now working for the City of Leicester. Miss Joan Barfield resigned from her full-time post in August and is now working for Hertfordshire County Council. Miss Linda Crees resigned from her full-time post in September and is now working in Vancouver, Canada.

Mrs. Janet Lewis resigned from her full-time post in February continuing to work in a part-time capacity.

In the report for 1961 it was stated that the number of therapists working in the City in December 1961 was 'eight full-time therapists (including the Senior) and two part-time therapists working for a total of four sessions'. In December 1962 there were five

therapists working full-time (including the Senior) and four therapists working part-time for a total of twelve sessions. The situation with regard to lack of staff is most acute and the service, as it was known a few years ago, will slowly deteriorate if the staffing difficulty continues.

Diagnosis of Speech, Language and Voice Disorders

The diagnosis of any speech, language or voice disorder may take several months and not until the diagnosis has been made can treatment be planned. Successful treatment is based upon correct diagnosis. There is little point in giving lip, tongue and articulation exercises to a child with dyslalia — or relaxation to a child who stammers until the cause of the dyslalia and stammer is determined.

As diagnosis plays such a very large part in our work we are grateful for the interest and help of our colleagues in the Medical and Education professions. We have in the past asked for 'opinion and advice' from Neurologist, Paediatrician, Plastic Surgeon, E.N.T. Consultant, School Medical Officer, Health Visitor, Head Teacher, Class Teacher, Peripatetic Teacher of the Deaf, Probation Officer and After Care Officer.

The staff of the Child Guidance Service have shown a very real interest in the problems of the child with speech and language difficulties and we are fortunate to have the help of Psychiatrist, Psychologist, Psychiatric Social Worker and Remedial Teacher.

Those of us able to work in the same premises as a Child Guidance Clinic find it very easy to discuss cases as the need arises. Therapists working in other Speech Clinics are encouraged to refer cases for Child Guidance and to visit the clinics for discussion whenever possible".

STATISTICS

	1962	*1961*
Number of cases under treatment	1,034	1,146
Number of cases referred for treatment	608	577
Number of cases transferred between clinics while on the waiting list	39	48
Number of cases admitted for treatment	362	454
Number of cases failing to attend interview ..	43	73
Number of cases where Speech Therapy was unnecessary	137	162
Numbers of cases discharged	441	474
Numbers of cases on the waiting list	441	375
Number of interviews with parents or guardians ..	1,488	1,789
Number of schools visited	31	29
Number of homes visited	5	8
Number of visitors to the clinics	76	59

CHILDREN UNDER TREATMENT—CLASSIFICATION OF DEFECTS

	1962	*1961*
Alalia	3	3
Dyslalia	508	575
Sigmatism	80	79
Rotacism	4	2
Stammer	279	319
Stammer and dyslalia	27	27
Stammer and sigmatism	1	11
Stammer and dysphonia	1	—
Clutter	—	3
Clutter and dyslalia	1	2
Clutter and sigmatism	—	2
Language retardation	29	31
Speech and Language retardation	40	15
Aphasia	—	1
Dysphasia	4	3
Dysphasia and dyslalia	—	1
Post operative cleft palate	12	18
Cerebral palsy	3	2
Dysarthria	7	1
Dysarthria and dyslalia	—	1
Hyper-rhinolalia	2	8
Hyper-rhinophonia	—	8
Hyper-rhinophonia and stammer	—	2
Hypo-rhinolalia	1	1
Hypo-rhinophonia	—	2
Mixed nasality	6	—
Dysphonia	4	4
Dysphonia and sigmatism	—	1
Dysphonia and dyslalia	2	3
Partially deaf	3	5
Retarded speech and language due to mental sub-normality	6	7
Idioglossia	2	—
Dysglossia	—	1
Brain Injured	—	1
Congenital auditory imperception	1	—
Post operative cleft palate and refusal to speak	1	—
Undiagnosed	7	7
	1,034	1,146

SOURCES OF REFERRAL

	1962	*1961*
School Doctors	324	307
Birmingham Childrens Hospital	8	12
Selly Oak Hospital	—	2
Dudley Road Hospital	—	3
Birmingham General Hospital	—	1
Orthopaedic Hospital	—	1
Uffculme Clinic	—	1
General Practitioners	3	10
Aural Clinic	10	11
Head Teachers	147	144
Heads of Training Centres	1	2
School visits by Speech Therapists	48	27
Child Guidance Clinics	13	7
Remedial Teachers	1	5
Parents	20	21
Medical Officer of Health	26	12
Childrens Department	2	1
After Care Officers	2	2
Residential Homes	—	5
Probation Officers	—	1
Transfer from Grimsby	—	1
Transfer from Worcestershire County Council	2	—
Transfer from Warwickshire County Council	1	—
	608	577

REASONS FOR DISCHARGE

	1962	*1961*
Cured	162	174
Speech very much improved	85	70
Speech improved	40	23
Discharged to other clinics outside the City	3	4
Speech Therapy unnecessary	20	19
Referred to Child Guidance Clinic	5	16
Referred to Birmingham Childrens Hospital	—	1
Referred to Dudley Road Hospital	1	—
Referred to Aural Clinic	—	1
Failed to attend	47	58
School leavers whose speech has very much improved	17	16
School leavers whose speech had not improved	—	4
Left Birmingham District	18	13
Discharged to other clinics within the City while under treatment	26	38
Parents refused treatment	6	7
Transferred to Special Schools	10	21
Unable to benefit from treatment	1	4
Spontaneous recovery while awaiting treatment	—	5
	441	474

ATTENDANCES AT CLINICS

	1962	*1961*
Dame Elizabeth House	879	1,538
George Road	1,120	938
Handsworth	894	1,158
Harvey Road	399	428
Kings Heath	2,028	2,355
Kingstanding	352	416
Lea Hall	486	690
Maas Road	338	349
Moseley Road	547	471
Sutton Street	1,202	1,266
	8,245	9,589

TUBERCULOSIS

Dr. V. H. Springett, Medical Director of Birmingham Chest Services, reports :—

"**Notifications**

There were 64 notifications of tuberculosis for children aged 5—14 years in 1962, the same number as in 1961, 20 less than in 1960, but 12 more than the record low number in 1959. The numbers now are so small that some fluctuation in the general downward trend is to be expected. Most notifications in childhood arise from the routine examination of children exposed to infection at home, and the occurrence of tuberculosis in one or two large families can easily lead to an increase in the total of notifications.

A total of 1,159 children were examined as contacts at the Chest Clinic during the year.

Mortality

Unfortunately the 3-year record of no deaths in children was broken in 1962, by the death of a 7-year old child, who had been notified following a routine contact examination in May 1961. She was under treatment in hospital when she died suddenly as a result of obstruction of the main air-passage following the rupture of a tuberculous gland : this is a rare mechanical complication of tuberculous glands, and particularly tragic when it occurs, as in this case, when the infection appears to be controlled.

Hospital Treatment

Hospital care for tuberculous school children continued to be available at Yardley Green Hospital, either in the 25 bed children's ward, or in a small separate section of an adult female ward for older

school girls. The very small number of older school boys requiring treatment were treated in a ward for male adults. The number of children admitted to Yardley Green Hospital during the year was 73, and there was no change in the excellent arrangements to continue their studies.

A small number of Birmingham children were admitted to The Limes Hospital, Himley, during the year, making up for the closure of the Kyre Park Hospital.

Table 1

BOYS AND GIRLS ANNUAL NOTIFICATIONS AND DEATHS FROM TUBERCULOSIS IN CHILDREN OF SCHOOL AGE OR LESS

	Notifications			*Totals*	*Deaths*
	0—4 Years	*5—9 Years*	*10—14 Years*	*0—14 Years*	*5—14 Years*
1936-40	65	41	34	140	21
1941-45	78	44	36	158	22
1946-50	95	66	52	213	16
1951-55	89	87	65	241	4
1956	85	62	54	201	1
1957	42	51	44	137	0
1958	69	44	59	172	2
1959	47	22	30	99	0
1960	62	46	38	146	0
1961	50	37	27	114	0
1962	61	34	30	125	1

Table 2

BOYS AND GIRLS NOTIFICATIONS AND DEATHS FROM PULMONARY AND NON-PULMONARY TUBERCULOSIS 1962

	Pulmonary		*Non-Pulmonary*		*All Forms*	
Age Groups	*Cases*	*Deaths*	*Cases*	*Deaths*	*Cases*	*Deaths*
0-4 years	58	0	3	0	61	0
5-9 years	32	1	2	0	34	1
10-14 years	25	0	5	0	30	0
TOTALS	115	1	10	0	125	1

B.C.G. AND VOLE BACILLUS VACCINE IN THE PREVENTION OF TUBERCULOSIS IN ADOLESCENCE AND EARLY ADULT LIFE

The Third Report to the Medical Research Council by their Tuberculosis Vaccines Clinical Trials Committee has been issued.

It will be recalled from previous reports that a controlled clinical trial of the effects of B.C.G. and vole bacillus vaccine during adolescence and early adult life was started in England in 1950. More than 50,000 children of both sexes participated, nearly all aged 14 to 15½ years on entry, initially free both from active tuberculosis and from known contact with the disease at home, and originally living in urban areas in or near North London, Birmingham and Manchester. Those with negative reactions to tuberculin on entry were vaccinated with B.C.G. or vole bacillus vaccine or left unvaccinated, according to a method of random allocation. All the participants, including those with a positive reaction to tuberculin initially, were followed up to discover the cases of tuberculosis occurring among them.

Two reports have already been published (Medical Research Council, 1956, 1959), giving details of the trial ; the second report contained results after each participant had been in the trial for five years. These showed that the two vaccines conferred substantial protection against tuberculosis ; the reduction in incidence in the vaccinated group in the first five years, compared with the tuberculin-negative unvaccinated group, was 83% for B.C.G. vaccine and 87% for vole bacillus vaccine.

This third report presents results for a period of intensive follow-up until September 1960, all participants having by then completed between seven and a half and ten years in the trial (average 8.8 years).

The summary shows that for the whole period the annual incidence of tuberculosis in the B.C.G. — vaccinated group was 0.40 per 1,000, compared with 1.91 per 1,000 among those in the tuberculin-negative unvaccinated group who were admitted concurrently ; this represents a reduction of 79% attributed to vaccination. Over the same period the annual incidence of tuberculosis in the vole-bacillus-vaccinated group was 0.43 per 1,000, compared with 2.30 per 1,000 among those admitted concurrently to the tuberculin-negative unvaccinated group ; this represents a reduction of 81%. The protective efficacy of each vaccine was thus substantial and was closely similar to that found for the shorter periods in the earlier reports (M.R.C., 1956, 1959).

B.C.G. VACCINATION

	1962	*1961*
Total Number of Vaccinations	16,815	16,336
Total Number of Injections	38,795	34,093

School Children (13 years old)

Arrangements for the continuation of this scheme among school children were as before.

During the year 15,184 children had B.C.G. Vaccination in schools, as compared with 14,457 in 1961.

The encouraging decline of Mantoux Positives shown last year has been maintained but at a decreasing rate :—

1954	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*
18.3%	15.1%	13.5%	13.0%	11.9%	9.4%	8.9%	7.9%	7.5%

Details of programme in schools are as follows :—

Number of parents approached	19,801
Number of acceptances	17,388
Number fully Mantoux tested	16,583
Number Mantoux Positive	1,240
Number Mantoux Doubtful	77
Number Mantoux Negative	15,266
Number Vaccinated with B.C.G.	15,184

Eighty-two children who gave a negative reaction to Mantoux test were not vaccinated for various reasons, swimming, illness, etc. A number of these were later tested and vaccinated at alternative clinics.

A sample of children from each school were given a conversion Mantoux test, and of one thousand one hundred and seventy-four tested, one thousand one hundred and thirty-four (96.6%) had converted.

Two hundred and fifty-six 13 year old school children were found to have been previously vaccinated either through the Contact Clinic in this City, or as special requests either through this City or other Cities :—

Number of Mantoux tests	256	
Number Mantoux Positive	234	
Number Mantoux Negative ..	15	(Re-vacc. :=9)
Number Mantoux Doubtful ..	1	
Failed to attend for reading of test ..	6	

As the result of a case of tuberculosis at a Training Centre this Centre was visited earlier than usual — 29th May 1962, and at the same time another Special Training Centre was visited because some of the children who were in contact with the case at a first Centre had been transferred there. One school was visited on the 2nd April 1962, because of a case of tuberculosis in the school. A previous visit had been paid to this school in October 1961 and it was not due for a re-visit until October, 1962.

During the year staff at various schools were Mantoux tested.—

Number Mantoux tested	10
Number Mantoux Positive	5
Number Mantoux Negative and Vaccinated	5

School Children *X*-Rayed during 1962

All children who gave a positive reaction to Mantoux tests (excluding those previously *x*-rayed) were offered *x*-ray appointments. (These include children who had previously been vaccinated and were re-tested as they now enter into the 13-year school scheme, and whose Mantoux test showed a positive result).

Appointments given — 1,465 (855 were strongly positive)

Positive reactors who failed to attend for *x*-ray ..	118
„ „ „ showed abnormal *x*-ray ..	49
„ „ „ were referred to Chest Clinic	26
„ „ „ „ normal	1,283
„ „ „ had been *x*-rayed during the year already	15

We continued to offer *x*-ray appointments to children whose parents refused Mantoux testing or vaccination with B.C.G. and also children who for varying reasons could not receive a skin test —

Number of appointments given to Non-acceptors ..	2,413
Number attended	1,371
Number Normal	1,344
„ Abnormal	27
„ Referred to Chest Clinic	15
„ *x*-rayed during the year already ..	28
„ already under Hospital care	4
Number of *x*-ray appointments given to children who would not benefit by vaccination with B.C.G. ..	219
Number attended	118
„ Normal	117
„ Abnormal	1
„ Under Hospital Care	1
„ *x*-rayed during the year already ..	1
„ Failed to attend	99

All children whose parents had signed permission cards for them to receive vaccination against tuberculosis, and who were absent when the Team visited the school, and who also failed to attend Central Clinics, were offered *x*-ray appointments :—

Number of appointments given to absentees ..	742
Number attended	212
Number Normal	211
„ Abnormal	1
„ *x*-rayed during the year already ..	4
„ Refused	1
„ Left City	1

Notification in 1962 of Tuberculosis in school children previously Mantoux tested or B.C.G. vaccinated :—

Five children who were	Mantoux Positive	in	1962
One child who was	„	„	„ 1961
Two children who were	„	„	„ 1958
One child who was	„	„	„ 1956
Two children who were	„	„	„ 1955
Two children who were	„	„	„ 1954
Two children who were vaccinated with B.C.G.		in	1956
„ „ „ „	„	„	„ 1955

Three-year Follow-up of Mantoux Positive School Children by *X*-ray. Mantoux Positive in 1958 (July—December) (Completing 1958)

Appointments offered	298
x-rayed during the year already	27
Number attended	144
„ Normal	129
„ Abnormal in 1962 Normal in 1958 ..	3
„ Abnormal in 1958 Normal in 1962 ..	11
„ Abnormal in 1958 and in 1962	1

Follow-up of Chest *x*-rays of those who were Mantoux Positive in 1959 (January—June) (1959 Incomplete)

Appointments offered	214
x-rayed during the year already	11
Number attended	98
„ Normal	89
„ Normal in 1959 Abnormal in 1962 ..	1
„ Abnormal in 1959 Normal in 1962 ..	8

Visits were again only paid to the University and Shawbury School, due to the poor response from the other colleges included in the B.C.G. Vaccination Scheme. Students attached to the other colleges and who wished to avail themselves of the Scheme were given appointments to attend at the Central Clinics at Congreve Street.

Number of visits (University and Shawbury School)	4
Number of Clinics held at Congreve Street ..	4
Number of permission cards received	275
Number of Students fully Mantoux tested ..	121
„ „ „ who gave Negative result to Mantoux test	110
„ „ „ Vaccinated with B.C.G. ..	110
„ „ „ who gave Positive result to Mantoux test	10
„ „ „ who gave Doubtful result to Mantoux test	1

Contacts, Hospital and Public Health Staffs.

Two visits were made to Hospitals in connection with vaccination of Staff.

Ninety-six clinics were held during 1962 at the Public Health Department —

Number skin tested	1,638
„ Positive	143
„ Doubtful	12
„ Negative	1,483
„ Vaccinated with B.C.G.	1,497

(Seventeen Mantoux negative reactors were not vaccinated for various reasons. The number vaccinated includes thirty-one direct from Maternity Hospital without Mantoux test).

Fifteen babies were vaccinated at Maternity Hospitals by a Physician.

Conversion Mantoux test completed	1,388
Number Converted	1,331
„ Negative	41
„ Re-vaccinated	10
„ Doubtful	16
„ who failed to attend for reading of tests at all Contact Clinics	132
Total number of injections given at Contact Clinics ..	4,665

Visitors

During the year 67 people visited the Section. These included six Doctors, one from Nigeria, one from Burma, one from Turkey, and 3 from the surrounding district of Birmingham, one nursing graduate from Nigeria and sixty Student Nurses from Birmingham Hospitals.

MASS RADIOGRAPHY SERVICE

Dr. L. A. McDowell, Medical Director, reports :—

"School Children *X*-Rayed during 1962

Children who gave a positive reaction to Mantoux tests and, those whose parents refused this test, as well as a few other children were offered chest *x*-rays in order to exclude tuberculosis. These *x*-rays were carried out by the Mass Radiography Service.

Analysis of Chest *X*-Ray Findings

Children with Positive Reaction to the Mantoux Test		
Number given appointments	1,465	
Number *x*-rayed	1,332	(91%)
Tuberculosis Found		
Referred to Chest Clinic	22	
Active lesions	5	(3.6 per 1,000)
Inactive but under supervision	17	
Other inactive lesions	9	
Non-Tuberculous Abnormalities		
Referred to Chest Clinic or Hospital	7	
Others	11	
Children of parents who have Refused Permission for Mantoux test.		
Number given appointments	3,374	
Number *x*-rayed	1,701	(50·5%)
Tuberculosis Found		
Referred to Chest Clinic	6	
Active lesions	1	
Inactive but under supervision	5	
Other inactive lesions	5	
Non-Tuberculous Abnormalities		
Referred to Chest Clinic or Hospital	7	
Others	8	"

CHILD GUIDANCE SERVICE

Dr. C. L. C. Burns, Senior Consultant Psychiatrist, reports :—

"Taking a backward glance at cases treated long ago is always interesting, and instructive. The impression made by looking over the first two hundred cases or so, is that most of them could have been dealt with by simpler means than Child Guidance. Many were backward and dull, from overcrowded homes. Some were sent to Open-Air Schools or Convalescent Homes. In others a little advice and encouragement was all that was needed. Some no doubt would relapse later. There were perhaps ten per cent who were worth full treatment. The fact of the matter was that in those days we were expected to work miracles : to clear up problems which were entirely due to bad economic and social conditions, and in other ways to make silk purses out of sow's ears. This gradually changed, and a more suitable selection was made as the years passed.

As regards conditions of working I suppose we had our fair share of difficulties and frustations. More cases than one could cope with, lack of staff, and especially bad premises. It was not till after the war that

one was able to work in a Clinic which was fit to be seen from the material point of view. Has Child Guidance changed much in thirty years? Not in essentials, but it has emerged from its comparative isolation and perhaps a certain rigidity, and become more varied and adaptable. In Birmingham the Child Guidance Service has gradually established better links with the School Service, mainly through the School Psychological Service, and the 'remedial teachers', as well as speech-therapists, are now all in Clinic premises (always bursting at the seams). It is also probably more favourably viewed by family doctors, and especially by paediatric specialists, than it used to be.

There is still room however for closer co-operation with many departments which deal with childhood problems. There is scope for much preventive work in other types of Clinics, such as Infant Welfare and School Clinics, as well as Paediatric out-patient departments. The knowledge which child psychiatry has evolved about the mental hygiene of childhood is being gradually passed on to medical students who will be able to apply it, one hopes, in the future. This information is mostly quite simple in its context, but young parents need to be more aware of what to expect at different phases of their children's development, and reassurance about emotional problems in the earliest years can often work wonders.

The first case ever seen at the Clinic 30 years ago, was referred for 'avoiding school'. He had been excluded from school on account of his 'nerves' for the past six months. Since the subject of 'school phobia' is a contemporary problem of some importance, it may be of interest to describe the case briefly and see what happened. Ronald was twelve years old when he came to us, and for the first two years had been missing school more and more with all sorts of excuses, from toothache to fainting. He had one sister four years older. His father had been a 'mother's boy', had broken down in the first world war, and was quiet and ineffectual. The mother was more normal, but gave in too much to the boy, who still slept in the same room as the parents. Ronald was a boy of poor physique, left-handed, quiet and sensitive. He was of average intelligence timid at school, and backward on account of absence. On one occasion the Education Welfare Officer called, and found Ronald fully armed with toy weapons, including an air-gun, from which a pellet whistled past the officer's head as he left—which showed that Ronald could be aggressive if need be. After a period of attendance at the Clinic, he was tried at Open-Air School but broke down after a few days, and said he would go to his old school. The Education Welfare Officer and the Headmaster were asked to co-operate- and the mother told that we must now be firmer with Ronald. This was a typical case in short, and one had to judge (by instinct at

that time, rather than experience!) at what point, after explanation and reassurance to begin to exert some 'moral pressure'. At any rate after a few months he was back at school, had been to a camp school which he enjoyed, and there has been no further trouble. When he left school there was a period of unsettled jobs, but two years later he was in a steady electrical job and was much more robust. It would have been interesting to know how he fared subsequently, and how he survived the war, but in a follow-up done in 1948 the family could not be traced.

One of the early cases receiving full treatment was a small boy of six who was unmanageable and the terror of the home. The parents quarrelled a great deal, and eventually separated. The child attended for play-therapy for some months and gave a dramatic demonstration of every kind of Freudian behaviour and interest that can be imagined, without any prompting or interpretation. His sexual and lavatory interests turned to wireless, and when followed up fifteen years or so later, he was living with his father and on the way to becoming a brilliant scientist and a charming young man. He had no recollection whatever of what he had said and done at the Clinic : it could be said that he had achieved a satisfactory sublimation! 30 years later however, he is still unmarried and unsocial.

An interesting point occurs to one: what sort of parents would these children make, and how many of their children would become neurotic or show severe problems of behaviour? It might have been expected that up to date then we would be seeing some of these children, but the fact is that we have hardly seen a single parent who originally attended the Clinic as a child—unless they have forgotten having done so! The results of our advice or treatment remain of course incalculable. A very thorough individual follow-up of cases seen from years earlier was carried out at one time, and the results seemed encouraging; but how far lasting improvement, or prevention of neurosis or delinquency could be claimed to our credit is another matter. The need however, for the kind of help and service that Child Guidance can give, is proved by the very rapid expansion of Clinics during the past thirty odd years.

This being my last report, I would like to take the opportunity of expressing my appreciation of the co-operation and loyalty which I have received from my colleagues, both in Clinics and other departments, during my thirty years service".

Mr. W. J. Bannon, Senior Educational Psychologist, reports :—

"A feature of the statistical returns compelling attention is the record waiting lists for clinical investigation at the end of the year. Never before in the history of the Service have more than 200 been awaiting a first interview. This is a 70% increase on the waiting list twelve months previously. It is partially explained by the phenomenal reduction in the numbers failing to accept investigation. There was a drop here of 54 (37%). A more important factor in the growth of waiting lists, however, is the continued bottle-neck in the P.S.W.'s work. To keep pace with the number of cases on our registers during the year (882) each of our present staff would have to deal with 252 cases annually — quite an impossible situation. The decision to employ Social Workers to fill some of the P.S.W. vacancies has helped a little, but we are still at only half our establishment strength and one-fifth of our planned needs in this field. Shortage of trained personnel throughout the country is only part of the reason for the problem. More attractive salaries paid in other social work fields is, I think, another reason.

While the Clinical Service difficulties increase, the Schools Psychological Service continues to expand. Nearly 900 children were seen individually by psychologists in schools and at Special Schools Clinic, and a small but interesting and rewarding research project was carried out in a Junior School in the industrial heart of the City. The Head Teacher was willing to release an experienced class-teacher to take eight children for group drama therapy once a week for nine months. These children were selected from the sixteen most difficult children in the school, the problem children, the misfits. There were four boys and four girls in the group. They were matched for age, sex, intelligence and maladjustment by a control group of eight equally disturbed children, for whom no group drama was organised. All sixteen were assessed comprehensively by a psychologist both before and after the experiment, and the results on the Bristol Social-Adjustment Guide show a dramatic drop in the amount of behaviour-disturbance in the boys and girls who had the group drama periods. There was no such drop in the level of disturbance in those children who had not been selected, and formed the control group. The results suggest that the organisation of small groups of children for drama therapy is a useful preventive measure. It allows problem children to express some of their problems in such play periods, and to build up stronger and more pleasing personalities. The most significant feature of this experiment is that it was carried out by a member of the school staff, and that the Head Teacher and his staff can in future organise such groups within the school as they find it necessary."

The year's figures are as follows :—

On waiting list at 31.12.61	122
Cases referred during 1962	760
	882

Sources of Referral :

Parents	80
School Medical Officers	157
General Practitioners	78
Hospitals, etc.	14
Head Teachers	245
Probation Officers	46
Other Agencies	140
	760

Reasons for Referral :

Behaviour Problems	385
Nervous symptoms	81
Habit disorders	86
Educational problems	111
Multiple problems	97
	760

Seen (581)

Children treated	581

Not Seen (301)

Failed to attend	93
On Waiting List at 31.12.62	208
	882

Cases closed during year :—

After diagnosis and advice	127
Improved	325
Placed away from home	45
Did not materialise	93
Other reasons	114
	704

S.E.T. ASSESSMENTS

In Primary and Secondary Schools (391)

Partially Hearing Pupils	20
Assessed as E.S.N. (62%)	230
Not E.S.N. (38%)	141
	391

In Special Schools and Special Schools Clinic (441)

Children unsuitable for Education at School Section 57(4) of the 1944 Education Act	125
Tests of Partially Hearing Children	48
Tests of Partially Sighted Children	25
Tests in Special Schools and Special Schools Clinic other than above	243
	441

Remedial Teaching Service

No. of interviews with children in schools, by the Service's Psychologist in 1962	64
No. of Primary and Secondary Schools which have received the Service during 1962	42

INFECTIOUS DISEASES AND IMMUNIZATION AGAINST DIPHTHERIA AND POLIOMYELITIS

The school medical officers and nurses visit the schools for special investigation when cases of infectious diseases occur and appropriate action is taken. There is close co-operation with the Public Health Department and the notification of cases is passed on immediately by the Medical Officer of Health. Where indicated, a public health medical officer visits the schools for special investigation.

No school or department was closed during the year on account of infectious disease.

Disease	*Sex*	5—9 years	10—14 years	*Total*
Anthrax	M	—	—	—
	F	—	—	—
Diphtheria	M	—	—	—
	F	—	1	1
Dysentry	M	55	17	72
	F	62	14	76
Acute infective Encephalitis ..	M	2	—	2
	F	1	—	1
Post infectious Encephalitis ..	M	1	1	2
	F	1	—	1
Erysipelas	M	—	4	4
	F	—	—	—
Food Poisoning	M	3	1	4
	F	3	1	4
Measles	M	733	47	780
	F	751	64	815
Meningococcal Infection ..	M	—	—	—
	F	2	1	3
Paratyphoid Fever	M	—	—	—
	F	—	—	—
Poliomyelitis Paralytic ..	M	1	—	1
	F	—	—	—
Poliomyelitis Non-paralytic ..	M	—	—	—
	F	—	—	—
Pneumonia	M	7	5	12
	F	6	3	9
Scarlet Fever	M	109	30	139
	F	111	52	163
Smallpox	M	—	—	—
	F	—	—	—
Typhoid Fever	M	1	—	1
	F	—	—	—
Whooping Cough	M	57	4	61
	F	65	8	73
Respiratory Tuberculosis ..	M	22	11	33
	F	10	14	24
Non Respiratory Tuberculosis ..	M	—	4	4
	F	2	1	3

1962

SCHOOL CHILDREN (1947-1956 AGE GROUP) IMMUNISED BY THE PUBLIC HEALTH DEPARTMENT

Number of **visits** to schools and special schools .. 21
and residential Homes and Nurseries .. .. 39 } TOTAL VISITS 60

Number of **injections** given :

1st injection given	65	TOTAL INJECTIONS 232 (completed primary course)
2nd injection given	56	
3rd injection given	93	(supplementary course)
4th injection given	18	(5—12 age group only)
TOTAL	232	

Number of oral **doses** given :

1st dose given	75	
2nd dose given	70	
3rd dose given	40	(completed course)
1 (supplementary) dose after 2 injections	3	
1 dose (after 3 injections) ..	21	(5—12 age group only)
TOTAL ORAL DOSES	209	

SCHOOL CHILDREN IMMUNISED BY GENERAL PRACTITIONERS, *OR* THE PUBLIC HEALTH DEPARTMENT

(at Infant Welfare Centres, during Campaign period, at evening Clinics, also Saturday morning and evening clinics at the Public Health Department and at Birmingham Parks during special functions).

Year Immunised 1962	DATE OF BIRTH										
	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	*Total*
P.H. Dept. (2nd injection) ..	30	20	15	17	15	9	6	7	2	3	124
G.P.'s. (2nd injection) ..	372	354	370	378	254	239	255	262	256	241	2,981
P.H. Dept. (3rd injection) ..	93	35	55	50	30	32	28	29	29	23	404
G.P.'s. (3rd injection) ..	413	361	384	392	274	273	337	277	247	257	3,215
P.H. Dept. (4th injection) ..	—	1	6	1	1	3	—	6	—	—	18
G.P.'s. (4th injection) ..	382	333	346	314	296	297	256	73	53	122	2,472
P.H. Dept. (3 doses)	829	837	930	878	817	779	777	746	630	549	7,772
G.P.'s. (3 doses)	76	57	80	56	55	59	51	41	49	49	573
P.H. Dept. (1 dose after 2 injections) ..	225	170	181	173	123	117	91	111	77	68	1,336
G.P.'s. (1 dose after 2 injections) ..	200	211	194	243	184	140	188	143	133	122	1,758
P.H. Dept. (1 dose after 3 injections) ..	3,453	3,133	2,928	3,018	3,435	3,376	2,989	1,570	261	263	24,426
G.P.'s. (1 dose after 3 injections) ..	532	403	381	374	321	299	211	70	6	18	2,615

AGE GROUP : 6—15 years

TOTAL INJECTIONS : 2nd injections (completed primary course) 3,105
3rd (supplementary) injection 3,619
4th (5—12 age group) injection .. 2,490

TOTAL DOSES : 3rd dose (completed course) 8,345
1 dose (after 2 injections) 3,094
1 dose after (3 injections) 27,041

DIPHTHERIA/DIPHTHERIA-PERTUSSIS/DIPHTHERIA PERTUSSIS TETANUS DIPHTHERIA-TETANUS 1962

	Combined Diphtheria/Pertussis		*Combined Diphtheria/Pertussis/Tetanus*		*Diphtheria*		*Diphtheria/Tetanus*		*Number of Sessions*	Total Number of Sessions
	Completed Primary	*Reinforcing*	*Completed Primary*	*Reinforcing*	*Completed Primary*	*Reinforcing*	*Completed Primary*	*Reinforcing*		
Infant Welfare Centres	624	—	4,477	—	285	1,291	121	384	713	
Day Nurseries	43	—	55	—	10	36	—	—	211	1,621
Institutions	6	—	5	—	37	16	—	—	41	P.H.D. Individual Injections
Schools	2	—	—	—	1,742	5,070	—	2	639	
Council House	2	—	14	—	61	116	6	5	17	30,043
General Practitioners	1,970	744	6,975	685	405	1,450	26	131	—	
	319 Tetanus only	12 Tetanus only								
TOTAL	2,966	756	11,526	685	2,540	7,979	153	522	—	

TOTAL COMPLETED PRIMARY .. 17,185

TOTAL REINFORCING .. 9,942

DEATHS FROM ALL CAUSES

AMONG SCHOOL CHILDREN — 1962

Causes of Death		
Acute Infectious Encephalitis including Encephalitis Lethargica	Male ..	1
	Female ..	—
Tuberculosis of Respiratory System	Male ..	—
	Female ..	1
Digestive Organs and Peritoneum	Male ..	—
	Female ..	1
Urinary Organs	Male ..	—
	Female ..	1
Other Organs	Male ..	1
	Female ..	2
Diabetes	Male ..	1
	Female ..	—
Cerebral Haemorrhage, etc.	Male ..	—
	Female ..	1
Other Nervous Disorders and Sense Organs	Male ..	1
	Female ..	2
Heart Disease	Male ..	1
	Female ..	—
Bronchitis	Male ..	—
	Female ..	1
Pneumonia (all forms)	Male ..	1
	Female ..	2
Other Respiratory Diseases	Male ..	1
	Female ..	—
Appendicitis	Male ..	1
	Female ..	2
Cirrhosis of Liver	Male ..	1
	Female ..	—
Acute and Chronic Nephritis	Male ..	—
	Female ..	1
Congenital Debility, Premature Birth, Malformations, etc.	Male ..	3
	Female ..	1
Suicide	Male ..	1
	Female ..	—
Other Violence	Male ..	13
	Female ..	7
Other Causes	Male ..	1
	Female ..	2
All Causes	Male ..	27
	Female ..	24

FATAL ACCIDENTS AMONG SCHOOL CHILDREN 5—14 YEARS INCLUSIVE, 1962.

Date	*Age*	*Sex*	*Injuries*	*Cause*
12th Jan.	5	F	Septicaemia associated with extensive burns. Accidental death.	Night dress caught alight from coal gas fire.
13th Jan.	10	M	Cerebral lacerations. Fracture of skull. Misadventure.	Pedestrian knocked down by motor van.
5th Feb.	8	M	Respiratory failure due to bruising of the lungs associated with mysture of liver.	Pedestrian knocked down by car.
4th Feb.	5	F	Carbon monoxide posioning. Accidental death.	Room caught fire due to paraffin heater.
9 Feb.	14	F	Traumatic cerebral contusion.	Motor car collided with pedestrian.
10 May	9	M	Haemorrhage from ruptured liver. Misadventure.	Motor van collided with pedestrian.
31 May	9	M	Fractures of the skull. Misadventure.	Pedal cyclist collided with motor lorry.
18th June	6	M	Cerebral contusion. Accidental death.	Pedestrian knocked down by motor van.
6th Mar.	13	M	Asphyxia due to carbon monoxide. Misadventure.	Smouldering fire in centre of room where he slept.
8th July	14	M	Fracture of skull. In collision with unidentified vehicle. Open verdict.	Knocked down by an unknown motor vehicle whilst parking a car.
21st Sept.	8	F	Drowning. Misadventure.	Fell from raft in Edgbaston Reservoir.
22nd Sept.	7	F	Cerebral laceration. Misadventure.	Pedestrian knocked down by motor car.
29th Nov.	5	F	Septicaemia from severe burns. Accidental death.	Clothing caught fire at coal fire.
18th Nov.	9	F	Severe head injury causing cerebral contusion. Misadventure.	Pillion passenger on motor scooter in collision with motor car.

Date	*Age*	*Sex*	*Injuries*	*Cause*
18th Nov.	14	M	Contusion of brain due to fracture of the skull. Accidental death.	Fell at home.
12th Aug.	11	M	Fractured skull accidentally sustained through slipping and falling down a cliff.	
21st Aug.	10	M	Drowning when he accidentally fell into River Avon at Abbotts Salford on the 16th August, 1962. Misadventure.	
5th Aug.	14	M	Drowning. Death by Misadventure.	
26th June	13	M	Asphyxia due to accidental drowning.	
10th June	14	M	Asphyxia due to immersion in water sustained when he fell down a steep rock into Ceunant Y Cwm, Ffestiniog. Accident.	

It is sad to report that the number of deaths from violence has increased this year. This wastage of precious young lives continues to give rise to much concern and the details of the causes are set out in the hope that thought is given to their prevention. There is need for making parents aware of unnecessary dangers at home. This is ably undertaken by the Royal Society for the Prevention of Accidents and the Birmingham Accident Prevention Council.

Street accidents also take their toll. Through Home and Road Safety Exhibitions, Junior Cycle Rallies, Safe Driving Competitions, "The Safety Campaigner" (the official organ of the Birmingham Accident Prevention Council) and the circulation of leaflets, a very strong bid is being made to reduce the number of deaths and injuries resulting from accidents. An appeal is made to every parent of a young cyclist to arrange for his child to be properly trained.

Moreover, Head Teachers, some of whom are members of the Birmingham Accident Prevention Council, have for many years included road safety as part of the curriculum in schools.

"As accidental deaths among children have declined more slowly than natural deaths, they are now proportionately more important than ever before. Twenty-eight per cent of all child deaths are the result of an accident, nearly half of which occur on the road".

Office of Health Economics 1962.

INSTITUTE OF CHILD HEALTH

Professor Douglas Hubble reports :—

"During the past year the Institute has received, jointly with Dr. E. L. M. Millar, a grant of £5,000 from the Nuffield Provincial Hospitals Trust to undertake a research into the health services for children outside hospitals in the City of Birmingham. Dr. Patria Asher has been appointed to carry out this research which will be jointly supervised by Dr. Millar and Professor Hubble and a steering committee has been appointed to assist them. Dr. Margaret Griffiths has joined the staff to do research work in cerebral palsy and this work is being supported by Mr. Paul Cadbury from a Cadbury Trust Fund for Cerebral Palsy Research.

We have continued our monthly meetings for School Health Service Medical Officers and the Medical Officers of the Maternity and Child Welfare Department. The programme of these meetings has now been entirely recast and we have started a monthly postgraduate meeting for Medical Officers with selected subjects and speakers. We have extended the invitation to attend these lectures to Medical Officers of the Health Department in neighbouring boroughs and counties. These meetings have been very successful and I think they will continue to be an important postgraduate activity for the Medical Officers of the School Health and Maternity and Child Welfare Departments, both in Birmingham and outside the City.

During the year we have held a series of symposia in the Institute, with an invited audience. The subjects of the first two symposia were 'Immunisation and Tuberculosis', and 'Home Accidents in Childhood', and four symposia have been arranged for the 1962-63 session on 'Mental Subnormality' with the following subjects :— 'Biochemistry, Chromosomal Abnormalities, Aetiology, and Early Diagnosis'; 'Mongolism'; 'The Education and Training of Mentally Retarded Children'; 'The Place of the Paediatrician and the Psychiatrist in Mental Subnormality'.

Our research work in the laboratories of the Institute is progressing satisfactorily. Four members of the Institute staff, Dr. June Lloyd, Dr. J. H. Edwards, Dr. Stefanos Pantelakis and Mr. Geoffrey Brown, read papers at the meeting of the British Diabetic Association in Cambridge in September 1962 on various aspects of their diabetic research. The long term study of the effects of an unsaturated fatty acid diet on the control of diabetes in childhood is actively continuing and very promising results are emerging. The work on epilepsy reached a very interesting stage during the year and the research on the influence of television on epileptic seizures, carried out by Dr. Brian Bower, Dr. Peter Jeavons and Dr. Stefanos Pantelakis created great interest, not only in Great Britain but also in America. Dr. Bower delivered a communication on 'Convulsions and Television Viewing' to the American Society for Paediatric Research in Atlantic City in May 1962 and another on 'Pyridoxine and Infantile Spasms with particular reference to a case of leucine-sensitive hypoglycaemia' to the Canadian Paediatric Society in London, Ontario, in June 1962. These workers have also been interested in the chemical aspects of epilepsy, particularly in those types of epilepsy which appear to be induced by pyridoxine deficiencies. Our studies on growth in childhood have continued and Dr. J. H. Edwards and the staff of the laboratory of chromosomal cytology are taking an active part in this important field of enquiry."

PHYSICAL EDUCATION

Report by the Organising Inspectors of Physical Education

Miss A. Thorpe and Mr. J. F. McCarthy

"In recent years Physical Education has been more noticeably emerging as a main aspect of the educational programme which, truly and ideally, is concerned with the development of personal and individual interest, skill and maximum potential. The subject is directed, more positively than ever before at persons with their own abilities, aptitudes and aspirations, rather than at people who are required to conform to a predetermined common standard. A great number of influences have contributed to this trend, among them greater interest in the proper use of leisure and a clearer recognition of the rights of the individual in relation to education. But the fact that this trend has not only been continuous throughout recent years, but has actually accelerated in the past two or three years tends to confirm the belief that the wide experience of a great number of games, athletic activities and outdoor pursuits, with later opportunity for developing all or some of these interests, constitutes for boys and girls a much more acceptable and educationally suitable contribution to their general development. The fact too, that so far physical education has escaped

the pressures and directives which are usually the consequence of examinations, has enabled the subject to be dealt with in real conformity with the ideal principles underlying education, and given the teacher the fullest opportunity to exploit his skill and knowledge for the real benefit of his pupils.

During the year 1962, the programmes of Physical Education in Birmingham schools have shown a remarkable variety of interest. Gymnastics and most national games, together with dancing, swimming and athletics, have for a long time made their valuable contribution and we are glad to say that the broadening of the programme so as to include other achievements has not had the sad consequence of a lowering of standards of achievement in these activities. The reverse is the case, standards are higher than ever, and after proper recognition of the teacher's part, much credit may also be paid to the school sports organisations which provide additional interest and incentive and a reasonable form of competition to help in raising the standards of the better performers. Among other activities which have been established in schools are, mountaineering, sailing, archery, canoeing, badminton, judo, camping and expeditions of various types. In all these activities the teaching staff concerned have proved themselves to have expert knowledge; and we have considered it right to include in our programme of teacher's courses opportunities for these teachers, and others, to receive further instruction and to meet and discuss their common interests. The past year has also shown a considerable increase in holiday activities which are related to the wider aspects of Physical Education. Camps and expeditions have been arranged in greater numbers than ever before, and the Committee's store of camping equipment has been in constant demand. We may say that if the present trend in camping continues, it will be quite impossible for us to meet the demands from schools for camping equipment next year. In due course, we therefore propose to make suitable recommendations.

The courses in Outdoor Pursuits for boys and girls held at Ogwen Cottage were again notable for the degree of success achieved. The parties of young people who are selected for these courses are themselves a sufficient testimonial for the continuance of these courses, and there is a demand for places which would warrant an increase in the number of such courses held each year. We regret that so far we have not been able to recommend any variation in the type of course, 'follow-up' courses would be most valuable, and courses with particular emphasis on certain specialised activities would also be helpful. Furthermore, we consider that while at the present time it is right to send boys and girls of good behaviour and with the best school records,

it is nevertheless regrettable that the corrective influences of life in close continual contact with the natural elements has not been brought to bear upon some pupils who would undoubtedly be the better for such an experience. Of the instructional staff at Ogwen Cottage, we cannot speak too highly, they are undoubted experts at their job and they offer us the most generous co-operation in regard to the planning and carrying out of our courses.

In previous reports we have mentioned developments in school gymnasia and physical education apparatus. 1962 has not provided any instances of particular note, new gymnasia are being built steadily, to bring older schools up to modern standards, and we consider that the nature of this provision compares well with gymnasia being built by other Authorities. The same may be said, of course, of the gymnasia which are in new schools.

Playing field shortage continues to be a problem, in this matter facts must be faced, we do not have enough to go round and what is available must be shared as fairly and reasonably as possible. We are glad to report, however, the opening in 1962 of the Committee's first ash running track. This track was specially constructed on the new Sheldon Heath School Playing Field and is capable of meeting the demands of an athletics competition at the highest level. It is a new and valuable asset not only for Sheldon Heath Comprehensive School, but occasionally also for other schools athletic interests in the area.

Swimming activities in schools flourish. More and more children attend classes and consequently many more learn to swim. It would be a happy subject to report upon if we could say that the needs of the schools are being met. Unfortunately, this is not the case. The bath accommodation available in Birmingham is perhaps in the right places to meet the needs of the general public, but it certainly is not in any way convenient for many schools classes. Too much school time is being used in travelling to and from the baths. We have previously examined this matter in some detail and have reported upon it. In the arrangements which we are able to make under present conditions, however, we acknowledge the help and co-operation of the General Manager of the Baths Department, and his Staff.

In conclusion, we have to say that we are satisfied with the progress made in Physical Education in Birmingham schools during 1962. The schools have a tradition of high standards in this subject going back over many, many years and because of this we must sometimes remind ourselves, and others, that advances to yet higher levels become increasingly difficult and much less obvious. Changes are taking place

gradually, but our first concern is always to maintain these standards and to change only for advantage. In this we believe we have the goodwill, certainly we have the co-operation, of the teaching staff of the City".

CAMP SCHOOLS

During the year 1962, a total of 1,177 children visited the three Camp Schools at Bell Heath, Romsley, Bockleton near Tenbury Wells and Stansfeld near Oxford. There were five vacant periods at the Camp Schools, two of which were cancellations of bookings owing to illness of school staff. The other vacancies were caused largely by staffing shortages at the Camp Schools and on four occasions these shortages also resulted in a reduction of the number of children who could be accommodated. During August, as in previous years, a party of German schoolboys from Frankfurt-am-Main were entertained at Stansfeld by a party of Birmingham boys, who will next year be entertained in Frankfurt. At Bockleton during the Summer holidays, the Women's Voluntary Service organised a holiday from 24th July to 3rd August for a group of children in need of a holiday.

The usual arrangements were made for all the children to be medically examined before going to the Camp Schools.

There was very little illness at any of the Camp Schools during the year, apart from one case of German Measles at Bell Heath, and one case of Chicken-pox at Stansfeld both in April. One case of quinsy in March, and one case of impetigo in November at Bockleton. There was one fractured ankle at Stansfeld, and the usual small number of minor accidents.

OUTDOOR PURSUITS COURSES
OGWEN COTTAGE SCHOOL

Six courses (two for boys and four for girls) were held at the Ogwen Cottage Mountain School during 1962. All the children attending the courses and the 'reserves' underwent prior medical examination. There were a number of cases of minor illness during the girls' course in March, 1962.

CONVALESCENT TREATMENT

Convalescence is an important aspect of complete treatment and the need for a period of convalescence for children recovering from illness is stressed by paediatricians.

Accordingly it is a pleasure to report that the Committee under the scheme was able to send 111 children to convalescent homes. Full payment was not made for all as in several cases contributions were made by a voluntary fund.

NURSERY SCHOOLS AND CLASSES

Number of Nursery Schools 27

Number of Nursery Classes 28

Dr. Lemin reports :—

"A number of visits were paid to nursery schools and nursery classes during 1962. These visits which were undertaken with Mrs. Barrass the deputy superintendent school nurse were in addition to those paid by the school medical officer and the school nurse for the areas in which the school or class was situated. It is felt that these visits are of value in allowing personal discussion on a number of points concerning the welfare of the nursery children as a whole and the individual child who may present a special problem. General policy of care and matters relating to the nursery building itself pertinent to the health and safety and wellbeing of the children is considered and discussed.

The general health of the children has presented a satisfactory picture. The many types of problems which are manifested by the children underline once again the valuable part that these schools and classes are playing in the child life of the city".

THE DODFORD NURSERY CHILDREN'S HOLIDAY FARM

Mrs. M. Mayers, Chairman of the Management Committee has kindly sent the following account of some of the year's activities at the farm :

"The past year has been a busy one for those connected with the Holiday Farm. The death of the founder, Dr. Dorothy Beaumont, in February 1961 has of necessity resulted in many changes. Whereas previously the Committee was a band of willing helpers and a dedicated leader it is now very much a group of individuals each with his or her own particular responsibilities and interests.

In February 1961 a Memorial Fund for Dr. Beaumont was set up. A small wooden carving of a group of children was commissioned as a permanent memorial at Dodford to Dr. Beaumont and this was unveiled in May by the Lady Mayoress of Birmingham before a large gathering of Dr. Beaumont's friends.

Altogether 400 children have this year visited Dodford. This figure is made up as follows :—

RESIDENT GROUPS

Organisation	*No. of Children*	*No. of Adults*
6 Nursery Schools	134	32
3 Day Nurseries	43	12
1 Resident Childrens Home	14	4
2 Brownie Packs	21	6
Unaccompanied Children ..	8	—
Family Groups	14	5

DAY PARTIES

5 Infant Schools	166	19

The Farm has been occupied for 17 weeks by Nursery Schools, Day Nurseries and Brownies, for 10 weeks by small groups and for one week by Day parties. This means that, taking into consideration the Housekeeper's holiday, the Farm has been unoccupied for approximately 22 weeks of the year. While this period falls mainly in the winter months when the country-side is less attractive to the town-dweller it is nevertheless felt that more use could be made of the Farm by the Family groups were its facilities better known. A start has been made by contacting the Birmingham Children's Department which has sent two children to us for three weeks while their mother was in hospital. During the coming year it is hoped to develop this aspect of the work more fully".

REPORT ON THE WORK OF THE SCHOOL NURSING STAFF

Mrs. A. W. Ashworth, Superintendent School Nurse, reports :—

"The promotion of the health of the school child within his family and school environment continues to keep the staff fully occupied. Liaison with other colleagues in the same field ensures that the best possible use is made of services provided to help both parents and children.

More intensive work is being carried out in the Health Education field in schools and individually by home visiting. This work combined with the improvement in environmental conditions should eliminate many of the old problems leaving more time to deal with individual problems of this modern age.

In-Service Training

All staff taking part in Health teaching attended special courses in the Health Education Section of the Health Department. Senior staff meetings were held regularly during the year to discuss the development of the work and problems arising from changing situations.

Two nurses sponsored by the Education Committee were successful in obtaining the Health Visitors Certificate.

Nurses Surveys

These surveys continue as in previous years according to the needs of the area. All entrants are examined by the School Health Visitor as soon as possible and the necessary liaison established between home and school.

General screening is carried out periodically by the school nurses and from these surveys 4,459 children were referred to Medical Officers and Family Doctors for investigation and treatment of defects.

Vision Surveys

Screening for visual acuity takes place as soon as possible after entry into School beginning in the Nursery School. Whilst in some areas it has been possible to carry out annual testing after the initial test, in others it is still only possible to test every two years.

All known visual defects are followed up according to need.
Out of 78,298 children tested during the year :

62,517 had normal vision.
4,840 were referred for observation.
4,278 were referred to medical officers.
5,010 had defects corrected by spectacles.
1,653 were not wearing spectacles at the time of testing.

Follow up and Home Visiting

This important aspect of the nurses work continues to develop. It is only by intensive follow up that satisfactory results can be obtained and continuous care given where necessary.

In the course of nurses follow up visits to school 9,309 children were seen, 1,145 were referred back to medical officers and 2,905 referred for further observation.

Home visiting is an essential feature of follow up work and the following table relates to visits paid for various reasons in 1962.

Reason for Home Visit	*1958*	*1959*	*1960*	*1961*	*1962*
All forms of neglect (including verminous conditions)	1,393	1,782	1,966	1,840	2,150
Other environmental conditions	167	566	656	847	1,120
Behaviour problems ..	120	165	162	197	218
All medical defects (including the handicapped)	1,940	2,586	3,074	3,216	3,345
No access visits (from all the above categories)	762	1,288	1,489	1,553	1,841
TOTAL ..	4,382	6,327	7,347	7,653	8,674

Nursery Schools and Classes

There is good co-operation between staffs of schools and nursing staff. Regular care is given and at the initial interview with the Mother before the child is admitted the value of prophylaxis is discussed, also the medical history thus providing a foundation to help in the supervision of the development of the child and establishing a good liaison between home and school.

Health Education

There are now 24 nursing staff taking part, in co-operation with the Health Education Section of the Health Department, in a planned programme of group teaching of Parentcraft and Hygiene in Schools.

Full use has been made of equipment and various aids supplied by the department. Newly qualified staff have had the benefit of advice and help given when necessary.

Health Education has always been an integrated part of the nurses work, individually or in informal groups and much valuable work has been accomplished giving advice about personal problems which may not be brought forward in general discussion.

Apart from the planned syllabus many informal talks have been given on request according to the needs of the groups concerned.

During 1962, many of the staff gave talks to organised groups outside the Service, mainly dealing with their work for the school child. In Primary and Secondary Schools there were 2,504 talks to classes given by nursing staff during the year.

Asthma

This clinic is supervised by the School Health Visitor responsible for Asthma follow up.

Part time help is given during clinic sessions by a team consisting of another School Health Visitor and two School Nurses.

There were 258 visits to homes for follow up purposes.

Ear, Nose and Throat Department

Two school nurses are engaged full time in this department which functioned as in previous years, covering all aspects of the work including Audiometric sweep testing in Schools and the follow up resulting from ascertainment of defects found during the surveys.

Visits are paid regularly to the Schools for the Deaf and assistance given at the Audiology Clinic.

Handicapped Children

Comprehensive care in follow up in this field of work is provided by a School Health Visitor assisted by two School Nurses working in liaison with their colleagues in the clinic areas.

All schools within the service, without their own nursing care, are visited regularly for periodic surveys and follow up of treatment necessary.

The Work of the Nursing Assistants

Work in the cleanliness field continues as in previous years. Every possible method is used to try and maintain reasonable standards of hygiene and care.

In addition to their normal duties of the follow up and cleansing of children found verminous, they have assisted the School Nurses by carrying out cleanliness inspections in areas of need, releasing the school nurses for other duties.

Special support by regular supervision, was given to 70 families involving 234 children for varying periods during the year, working in many cases with voluntary agencies to help to improve family care due to parental inefficiency.

Following up verminous conditions resulted in 77,288 re-examinations of children by the nursing assistants.

There has been a further increase in the incidence of Scabies this year, 248 children were treated in the bathing centres".

INFESTED CHILDREN

	1957	*1958*	*1959*	*1960*	*1961*	*1962*
Infestation rate	7.4	7.6	8.3	9.3	8.9	9.0
Number of individual children cleansed on Statutory cleansing orders	1,989	1,917	2,054	2,596	2,211	2,124
Total number of Statutory cleansings ..	3,245	2,710	2,695	2,990	3,094	2,837
Cleansing demonstration to Mother	523	625	510	540	611	608
Prosecutions under Section 54	46	50	75	59	47	59
Number of families involved	34	40	58	40	40	30

PROBLEM FAMILIES

Dr. Lemin reports :—

"The problem of the family out of step with life is much with us. The Chief Medical Officer to the Ministry of Education in his report for 1960-61 says :—

'Although education, health and welfare services for children and their parents are more extensive now than at any time in this country's history, there are still thousands of boys and girls without a good family life. No doubt many of their parents were themselves the products of indifferent homes. The common endeavour of all who have dealt with these children and their parents is to break the circle of parental heedlessness, apathy and ignorance and replace it with the ties of a healthy and happy family life. This is a difficult task but it is an essential part of health education'.

This gets to the very root of the matter, which is parental apathy and heedlessness and unconscious or unrepentent ignorance. Continual work has been carried out by the staff of the School Health Service who together with their colleagues in the other branches strive to bring about improvement in the family conditions in general and for the children in particular. In some cases their efforts have been rewarded but in others unfortunately they have not been so successful but the work is steadfastly continued.

As always, as in previous years, close liaison has been maintained with the Children's Department, the Health Visitors in the district. the N.S.P.C.C., the Family Service Unit and the Education Welfare Officers, so that a satisfactory unification of effort can be arranged

avoiding multiplicity of visitors. As long as these families remain it is urgent that all the work possible should be carried out to improve and support them with all the means at our command, though it is abundantly clear that prosecution as it stands is not the answer".

HEALTH EDUCATION

The Superintendent School Nurse includes in her report the developments in the arrangements through which the School Nurses take an active part in Health Education in the Schools. The Health Education Section of the Health Department is also actively concerned with this work.

In addition the following activities have taken place during the year :—

The School Medical Officers and Nurses have given a number of talks at Parent Teacher Association meetings on "The School Health Service" and "Child Health". These opportunities continue to be welcomed as they afford occasions for reinforcing the impressions made at the periodic medical inspections and for discussing problems with the parents.

Lectures and demonstrations have been given in connection with the training for staffs of Children's Homes, for student health visitors, for teacher's training courses at Westhill College, for teachers taking the Birmingham University course for the certificate in the teaching of educationally subnormal children, for the staff of the Home Nursing Service, to the student nurses at Selly Oak and St. Chad's Hospitals, to teachers attending the one-year course on Handicapped Children at the City of Birmingham Training College, to student health visitor tutors, to the students at the Queen's College, Edgbaston, to visiting students from Training Colleges outside Birmingham, to a member of the Hospital Administrators National Training Scheme, to a party of Greek Cypriot Headmasters, and to a party of German architects and planners.

CHILDREN IN PART-TIME EMPLOYMENT

Dr. Lemin reports :—

"Although there were no children in pantomime presented for examination as such—15 children were seen during the year in respect of theatrical licences ; of these 15 no adverse comment can be made.

In respect of children in part-time employment 7,384 children were examined by the School Medical Officers of whom 26 were found to be temporarily or permanently unfit owing to such conditions as a fractured leg, heart conditions, rheumatism, asthma and bronchitis and poor general health. Some of these children were seen again later and their condition had improved and they were passed fit. Although the 26 children may appear to be a very small percentage of the total number of children presenting themselves for examination the fact that they would have been carrying out duties which might have affected them adversely underlines the importance of such examinations being carried out. By these examinations also a proportion of school children between the ages of 13 and 15 pass under review. Thereby a further form of medical follow up is accomplished and defects which might not be obvious and which may not make the child unfit for employment are noted and can be kept under observation".

EXAMINATION OF TEACHERS AND ENTRANTS TO TRAINING COLLEGES

In accordance with the Ministry of Education Circular 249, school medical officers have examined the candidates for admission to training college and intending teachers, other than those who were examined on the completion of the approved course of training before entering the teaching profession.

45 medical examinations were carried out for other authorities whilst 103 intending teachers for Birmingham were examined in their own areas so that unnecessary travelling might be avoided. During the year 24 candidates were referred either for a specialist opinion and recommendation or for a report from the family practitioner. Before a candidate was referred to a specialist a discussion was held with the practitioner. Fees were paid in respect of two candidates requiring a specialist opinion in accordance with the Committee's scheme.

The following table shows the number of candidates examined. It will be seen that there has been an increase over the years and especially so for 1962, where the greatest increase was shown amongst the intending teachers.

	1960	*1961*	*1962*
Training College candidates	338	398	499
Intending Teachers	484	468	770
College of Art students	56	45	43
	871	911	1,312

Arrangements were made during the year to undertake the medical examination of students qualifying as teachers at the School of Music. 13 students have been examined.

WOOD END HALL HOSTEL FOR CANAL BOAT CHILDREN

Dr. Lemin reports :—

"The maximum number of children at the hostel for 1962 was 23 at any one time.

During the year under review the Wood End Hostel was visited at the beginning and end of each term and medical examination was carried out on each child. At this examination any defects requiring treatment and observation were noted. Where treatment was required this was carried out.

5 children found to be in need of refraction had glasses prescribed for them.

A number of children required dental treatment and some were referred for orthodontic treatment.

Seventeen children had remedial sessions arranged for them—for defective posture, for breathing exercises and for other orthopaedic defects.

One child was seen at The Children's Hospital and one child who was seen by Mr. Allan during his visit to the clinic was referred to the Royal Orthopaedic Hospital for further investigation. One boy was admitted to Dudley Road Hospital for tonsillectomy.

Where the children were found to be unsatisfactory in any way, such as a weight loss associated with a poor general condition, an arrangement was made to see them again at half term. It was found in all cases that these children had improved at the second examination.

The incidence of illness during the year was relatively light. There were seven cases of measles, four cases of chickenpox, one case of bronchitis and two cases of enteritis.

I would like to thank Dr. Goldman for his care of the children during any illness. Following his retiring from practice in the district Dr.'s D. and A. M. Blair were good enough to undertake to look after any hostel children who were ill and thanks are due also to them for their kindly help.

As has been noted on previous occasions the children at the hostel have become an integrated and corporate family.

The report cannot be concluded without paying tribute to the matron and staff and those who work in the central office for their help and understanding which has gone so far in bringing about the well-being of the children at the hostel".

USE OF RADIOACTIVE SUBSTANCES AND *X*-RAY EQUIPMENT IN TECHNICAL COLLEGES AND SCHOOLS

Technical Colleges

Administrative Memorandum Number 547 was issued by the Ministry of Education on 29th March 1957, and refers to the use of radioactive substances *x* ray and gamma-rays in Technical Colleges. Detailed Notes for Guidance were drawn up by the Radioactive Substances Educational Panel and were issued with this administrative memorandum.

In 1960 with increased appreciation of the requirements in this field and constant progress in outlook, the original Notes for Guidance were replaced by new notes, referring to (*a*) the use of Unsealed Radio-active Substances and (*b*) the use of *x* rays and Sealed Radioactive Substances.

An important feature of these new notes concerns the association of the Medical Officer of Health with the Technical Colleges and outlines his responsibilities.

Schools

Administrative memorandum Number 577 dated 24th October 1958, referred to the use of radioactive substances and *x* ray equipment in the schools. This was issued to the schools in November 1958. During 1962 Heads of Schools were reminded of this memorandum and special attention was drawn to salient paragraphs.

Where special demonstrations are carried out the Medical Officer of Health is consulted.

ULTRA VIOLET LIGHT APPARATUS

The firm of scientific instrument engineers who are responsible for the maintenance of the ultra violet ray apparatus in the various school clinics in the city reported on the apparatus. The Authority was assured that the apparatus which this firm service is also checked and tested to conform to the Ministry of Health Circular for Hospitals Number 60/49 in the safety of electrical apparatus.

Furthermore there was the assurance that the apparatus does not attain anywhere near the operative level of five kilovolts so that there is no problem of radiation hazard.

CO-OPERATION AND ACKNOWLEDGEMENTS

It is a pleasure to acknowledge the material help which the teachers give to the School Health Service. The relationship continues to be cordial and ready assistance is given, sometimes in spite of difficulties over accommodation in the school. The aid which the teaching and School Health Service staff can give to each other and so to the pupils is fully recognised.

The Committee's Inspectorate and Advisers have also shown their general interest and have given valuable advice in particular cases.

To doctors at the hospitals and in general practice this opportunity is taken of expressing appreciation for their very material help in supplying reports and for discussing special points over the telephone in the midst of their busy activities and to the Secretary of the Local Medical Committee for the interest and consideration he has shown.

Acknowledgement is also made of the willing help and co-operation given by the following who are now connected in various ways with the work of the School Health Service: the Senior Administrative Medical Officer of the Regional Hospital Board, and his medical assistants; the Secretary of the Board; the Secretary of the United Hospital Board and the Clerk of the Local Executive Council.

In many ways the Education Welfare and School Attendance Officers give material assistance to the School Health Service, and special mention may be made of their help in following up some cases and in providing information from their wide range of activities.

It is a pleasure to mention the help which the Almoners of the hospitals, the Children's Officer and his staff, and the Probation Officers render to many children.

Appreciation is expressed to the local press for the helpful and sympathetic presentation of school health topics.

To the Organisers and Inspectors of the National Society for the Prevention of Cruelty to Children, a special word of praise is due for their warm co-operation over difficult cases which call for both tact and zeal.

Appreciation is expressed to Pearson's Fresh Air Fund, to the Women's Voluntary Service and the Family Service Unit, for their help in providing outings and holidays for Birmingham children.

The Birmingham Mail Christmas Tree Fund once again made generous gifts for Christmas Parties at Special Schools and Special Training Centres.

HANDICAPPED PUPILS

West Midlands Advisory Council on Special Educational Treatment

A meeting of the Committee was held on 5th December 1962.

In a discussion on the training of staff for Child Guidance Clinics it was noted that the number of psychiatric social workers was increasing very slowly. There was an urgent need for more child psychiatrists also.

Some concern was expressed about the difficulty of finding places for partially-sighted children who are also educationally subnormal.

The after-care of handicapped pupils was discussed and it was decided to await the report of the Working Party set up by the British Council for Rehabilitation to consider arrangements for the after-care of handicapped pupils before any action is taken.

The shortage of places for maladjusted children suggested there may be a case for extra regional provision.

Schools for Delicate Children

A great deal of thought is being given to the provision made for children classified as "Delicate". Dr. Kemp discusses the subject in his report and some further observations may usefully be added.

It will be recalled that the earliest open-air school for delicate children was established in this country in 1907. In Birmingham, the first open-air school, Uffculme, was started in 1911.

In these schools the treatment was not concerned so much with education as with the provision of facilities for restoring the children to robust health. In general, the special treatment relied mainly on good food, fresh air, exercise and rest. Cases for which education under open-air conditions was considered particularly suitable were as follows :—

(*a*) Children suffering from malnutrition, anaemia and the after-effects of rickets.

(*b*) Children convalescent from debilitating diseases such as measles, whooping cough, pneumonia, etc.

(*c*) Delicate and nervous children. ("Nervous" would appear to approximate to the modern terms "emotionally disturbed" and "maladjusted").

(*d*) Mild cases of tuberculosis glands in the neck.

(*e*) Cases of chronic bronchial catarrh and quiescent pulmonary tuberculosis.

(*f*) Children suffering from non-contagious external eye diseases such as blepharitis when associated with malnutrition.

The purpose of "open-air" education was to stimulate the metabolism by the provision of the "well-ventilated" classrooms with which all are familiar. In addition to the open-air life and good feeding, a third factor of importance was the insistence on an hour's rest period after the mid-day meal. Attention to personal hygiene, and the provison of active out-door pursuits such as gardening, nature-study and games, helped to restore the children to normal health. The length of stay at the school was adjusted to meet the needs of the individual child and varied from six months to two years—occasionally it was longer.

The substantial improvement in child care, in social conditions and in medical skill in the past few decades has reduced the number of children suffering from debility and *under*-nutrition, but these have been replaced by others with respiratory conditions such as asthma, bronchitis and bronchiectasis and a group of "stress" conditions has manifested itself—viz., school refusal, mild maladjustments, social handicaps, family and environmental difficulties. If not handled properly these will become severe and are likely to present themselves ultimately on the level of frank physical symptoms.

Good ventilation with warmth indoors, and an active out-of-door life are now recognised as being preferable to the exposure to the elements at one time advocated as an essential part of the

school regime, and attempts have been made to make the buildings weather-proof. Except in a few selected cases, provision of breakfast in day schools is no longer considered necessary nor is it desirable for the children to "rest" after lunch except where this is especially prescribed by the School Medical Officer.

Dr. Kemp mentions the referring agencies. Many of the children recommended for admission are brought to the notice of the Medical Officer because of repeated or long term absence, from school, or "school refusal". Some are "discovered" during ascertainment for possible Educational Subnormality having been reported as making no (or very little) educational progress ; a few are referred from the Child Guidance Clinics. The majority of the children, whatever the reason for their admission, are, in addition, severely retarded educationally—indeed many can be described as "non-starters" in the educational field—although intelligence ranges from E.S.N. level to "very superior". It is difficult in many cases to assess whether educational retardation is the cause or the result of the physical and/or emotional manifestations, but there is no doubt whatsoever that improvement in educational attainment, emotional stability and improved health are interrelated. Even in the early days of schools for delicate children it was apparent that as health improved, almost invariably there was an acceleration of educational achievement although the converse was never even considered. Psychosomatic illness was unheard of at that time !

To-day educationalists are convinced of the need to deal with the child as a "whole" person and of the impossibility of treating successfully any symptom in isolation. Treatment must therefore be concerned with the intellectual, emotional, physical, social environmental and spiritual well-being of each child and this can be achieved only be means of closest co-operation and collaboration of the staff— educarional and medical—working harmoniously together and with the parents.

Throughout this period of transition from the schools for delicate children of yester-year to those of the present time with the change of emphasis from "open-air" to "school" it has not always been possible to adapt the former accommodation of the schools to meet the new requirements. The children present to their teachers complex problems which require great insight and understanding and a knowledge of individual differences in children as well as specialised techniques of teaching, which can only be dealt with satisfactorily on an individual basis. The children themselves require to be participants in educational projects and activities which require space and room for movement and which can only be conducted in small groups.

BIRMINGHAM CHILDREN ON REGISTERS OF SPECIAL SCHOOLS MAINTAINED BY THE AUTHORITY AS AT DECEMBER, 1962.

Educationally Sub-Normal Children

Residential :

St. Francis Boys and Girls	103
Springfield House Girls	56
Astley Hall Boys and Girls	49

Day :

The Collingwood Senior Girls, Junior Mixed	179
The Amblecote Senior Girls, Junior Mixed	144
The Queensbury Senior Boys, Junior Mixed	144
The Hamilton Senior Boys, Junior Mixed	119
Hallmoor Senior Mixed	135
Hallmoor Junior Mixed	57
The Dame Ellen Pinsent Senior Boys, Junior Mixed	114
The Calthorpe Senior Boys, Junior Mixed	150

Deaf and Partially Hearing Children—Day Schools

The Braidwood School for the Deaf, Mixed	83
The Longwill School for the Deaf, Mixed	94

Partially Sighted Children—Day Schools

The George Auden School for P.S. Children, Mixed	41
The Priestley Smith School for P.S. Children, Mixed	44

Delicate Children

Residential Open-Air Schools :

Cropwood Girls	79
Hunters Hill Boys	99
Haseley Hall Junior Boys	38
Skilts Mixed	45

Day Open-Air Schools :

Marsh Hill, Mixed	154
Uffculme, Mixed	137

Physically Handicapped Children

Residential :

Baskerville, Mixed	34

Day :

The Wilson Stuart, Mixed	147
The Victoria, Mixed	127

Hospital Special Schools

Orthopaedic :

Forelands, Bromsgrove, Mixed	7
Woodlands, Northfield, Mixed	23
Accident	10
Childrens	15
Dudley Road	34

Sanatorium :

Yardley Green, Little Bromwich, Mixed	39

Handicapped Pupils (Maladjusted) Boarded in Hostels Maintained by the Education Committee

Wake Green Hostel	12

EXTRA DISTRICT CHILDREN ATTENDING BIRMINGHAM SCHOOLS AS AT DECEMBER, 1962

Educationally Sub-Normal Children

St. Francis Residential School	93
Springfield Residential School	2
The Queensbury Day School	12
The Amblecote Day School	10
Dame Ellen Pinsent Day School	11
Hallmoor Junior School	4
Hallmoor Senior School	2
The Collingwood School	1
The Calthorpe	1
Hamilton	1

Deaf and Partially Hearing Children

The Braidwood School for the Deaf	76
The Longwill Day School for the Deaf	21

Partially Sighted Children

The George Auden School for P.S. Children	8
Priestley Smith School for P.S. Children	20

Delicate Children

Cropwood Residential	1
Haseley Hall	1
Marsh Hill Day	1
Uffculme Day	5

Physically Handicapped Children

Baskerville Residential P.H. School	9
The Wilson Stuart Day P.H. School	17
The Victoria Day P.H. School	3

Hospital Special Schools

Orthopaedic :

Woodlands	12
Forelands	17
Dudley Road	4
Childrens	14
Accident	11

Sanatorium :

Yardley Green, Little Bromwich	4

RESULTS OF SPECIAL EXAMINATIONS—1962

Results of examinations during the year of children with a view to their receiving or continuing to receive special educational treatment.

Number of children seen	1,320
Recommended for Day (E.S.N.) School	231
Recommended for Residential (E.S.N.) School	81
Recommended for Residential Open-Air School	164
Recommended for Day Open-Air School	126
Recommended for Residential (P.H.) Special School	9
Recommended for Day (P.H.) Special School	51
Recommended for Residential School for Epileptics	15
No action	56
To stay in Special School	89
For trial in Ordinary School	37
To stay in Ordinary School	172
To leave Special (E.S.N.) Schools in order to take up employment	27
To leave Open-Air Schools in order to take up employment	15
Decision deferred	105
To be excluded from School temporarily	7
Recommended for exclusion under Section 57(4) of the Education Act, 1944	76
Recommended for Home Teaching	12
Recommended for Carlson House School for Spastics	11
Recommended for Ordinary Schools	27

Number of children reported to the Local Health Authority in 1962.

Under Section 57(4) of the Education Act, 1944	82

The following report made to the Ministry of Education relating to handicapped pupils in the calendar year ended December, 1962, also gives valuable information.

	(1) *Blind* (2) *Partially Sighted*		(3) *Deaf* (4) *Partially Hearing*		(5) *Physically Handicapped* (6) *Delicate*		(7) *Maladjusted* (8) *Educationally Sub-Normal*		(9) *Epileptic*	(10) *Speech Defects*	(11) *Total* (1)(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
In the calendar year ended 31st Dec., 1962											
A. Handicapped Pupils **newly placed** in Special Schools or Boarding Homes	3	18	4	20	70	227	40	277	11	1	671
B. Handicapped Pupils **newly ascertained** as needing education at Special Schools or in Boarding Homes	4	23	4	20	70	304	42	287	12	1	767

LIST OF BIRMINGHAM CHILDREN IN SPECIAL SCHOOLS NOT MAINTAINED BY THE EDUCATION COMMITTEE AS AT 1st DECEMBER, 1962

Blind and Partially Sighted Pupils

Birmingham Royal Institution for the Blind :

Residential	18
Day	3
Exhall Grange School, Coventry	3
National Institute for the Blind, Chorley Wood	2
National Institute for the Blind, Leamington Spa	2
National Institute for the Blind, Rushton Hall	1
Sunshine Home, Overley Hall	2
St. Vincents Catholic School for the Blind, Liverpool	5
Royal Normal College for Blind, Rowton Castle, Salop	5
Worcester College for Blind	1
Royal School of Industry for Blind	1

Educationally Sub-Normal Blind Pupils

Condover Hall	2

Deaf and Partially Hearing Pupils

Needwood, Staffs.	1
Birmingham Royal School for the Deaf	11
Mary Hare Grammar School for the Deaf	5
St. John's Institution for the Deaf, Boston Spa	4
Burwood Park	1

Bridge House School for Deaf Children, Harewood, Yorks. ..	3
Royal School for Deaf, Margate	2
Royal School for Deaf, Derby	1
Belmont Hospital	1

Epileptic Pupils

Lingfield Epileptic School, Surrey	31
Colthurst House, Cheshire	1

Physically Handicapped Pupils

Tudor Grange School, Solihull	1
Hinwick Hall School for Crippled Children	3
Halliwick Cripples School, Winchmore Hill, London	2
National Children's Homes, Penhurst, Chipping Norton ..	3
Victoria Home, Bournemouth Shaftesbury Society	1
"Thieves Wood" School, Mansfield, Nottingham	1
Dame Hannah Rogers	1
Dr. Barnardos, Bruce Porter	1
Dr. Barnardos, Ian Tetley	1
Dr. Barnardos, Spring Hill	1

Spastic Pupils

Carlson House	48
National Spastics Society, Irton Hall	1
Hawkesworth Hall	3
Thomas De-la-Rue	1

Educationally Sub-Normal Pupils

Besford Court, Worcester	6
Pield Heath (All Souls'), Middlesex	2
Rhydd Court, Worcs.	2
Hilton Grange, Old Bramhope, Leeds	1

Pupils with Speech Defects

Moor House School, Oxted, Surrey	5

Diabetic Homes

Palingswick House Home	1
Children's Society Home, Deal	1

Maladjusted Pupils

Bodenham Manor School, Hereford	13
Shenstone Lodge, West Bromwich	11
River House, Henley-in-Arden	3
Red Hill School, East Sutton, Maidstone, Kent	1
Hillaway Homes for Children, Devon	14
Swalcliffe Park, Banbury, Oxfordshire	2
Chaigeley School, Thelwall, Warrington, Lancs.	1
Wennington School, Wetherby, Yorks.	2
Breckenbrough School, Thirsk, Yorks.	3
St. Anne's R.C. School, Portobello Road, London	2

Hospital Special Schools

Orthopaedic :

Marlborough, Mixed	5
Warwickshire Orthopaedic	41

Sanatorium :

St. Cuthbert's	30

Handicapped Pupils Attending Independent Schools Assisted by the Education Committee under Section 9(1) of the Education Act, 1944

Elmfield, Stourbridge (Maladjusted)	6
St. Thomas More's College, Devon (Maladjusted)	4
Dartington Hall School, Totnes, Devon (Maladjusted)	1
Salesian School, Longhope, Glos. (Maladjusted)	4
Sacred Heart College, Droitwich (Maladjusted)	1
Burcot Grange School, Sutton Coldfield (Delicate)	1
Millfield School, Somerset (Maladjusted)	1
Salmons Cross School, Surrey (Maladjusted)	1
Lilliput, Moreton-in-Marsh (Maladjusted)	1
Annecy Convent, Seaford (Educationally Sub-Normal)	1
Heathercombe Brake, Devon (Maladjusted)	1
Blackfriars School, Llanarth (Delicate)	1
Uppingham, Rutland (Delicate)	1
Bromsgrove School (Delicate)	1
King Edwards School, Witley, Surrey (Delicate)	1
Bedstone, Salop (Delicate)	1
Wynstones, Gloucestershire (Delicate)	1
Dedisham Nursery, Sussex (Delicate)	1
Convent of Holy Child Jesus (Delicate)	1
Camphill Rudolf Steiner, Aberdeen (Maladjusted)	2
St. Josephs, R.C., London (Maladjusted)	3
St. Peters, Yorks. (Maladjusted)	1
Farney Close (Educationally Sub-Normal)	1
Derwen Training College (Physically Handicapped)	1
Sibford, Oxon (Maladjusted)	1

THE SCHOOLS FOR THE PARTIALLY SIGHTED

Mr. Mark Tree reports :—

"In my annual review of the children of these two schools I have been concerned with their visual progress. In cases where no degenerative complications are present, and the family history is satisfactory, and where adequate improvement has occurred, the possibility of normal schooling is considered.

In this manner during the past year five pupils have been transferred to normal schools. The psychological effect of such transfer on the older pupils and their parents is heartening. Nevertheless, the proportion of cases in which this can be done is very limited.

Cases with multiple defects constitute a considerable proportion of the pupils of partially sighted schools together with cases of nystagmus and congenital cataracts. Such children need considerable individual attention and for them our two schools are invaluable. With modern methods the number of cases of retro-lental fibroplasia have declined but children with cataracts due to German Measles in the mother still occur. I believe it should be possible to organise the collection of antiserum from convalescent cases of Rubella at infectious disease units, such as that at the Little Bromwich Hospital. This would augment the supply of Gamma Globulin available for the mothers who have been in contact with cases of German Measles and prevent the occurrence of serious defects in their unborn children.

I append as usual statistics of our two schools, for the details of which I am indebted to the two heads, Miss Cox and Mr. Challacombe. I have also classified the pupils in groups indicating the major disabilities which have placed them in the partially sighted category.

Total number of pupils in the 2 schools = 110 consisting of 68 boys and 42 girls.

New admissions—18 pupils.

Transferred to normal schools	5 pupils
Transferred to residential school	2 „
Left school to commence work	11 „
Emigrated	1 pupil
Excluded as unsuitable	1 „

16 *High Myopes* consisting of 10 boys and 6 girls.

(*a*) 8 are Familial cases
(*b*) 4 with Convergent Squints
(*c*) 1 with marked Astigmatism
(*d*) 1 with Retinal degenerative changes
(*e*) 1 with Retinal Detachment
(*f*) 2 with Nystagmus
(*g*) 1 with Multiple Defects

54 *Nystagmus Cases* consisting of 32 boys and 22 girls.

(*a*) 13 with Albinism
(*b*) 19 with Congenital Cataracts
(*c*) 13 with Squints
(*d*) 1 with Bilateral Optic Atrophy
(*e*) 1 with Congenital Hemiplegia

30 *Cases of Congenital Cataract* consisting of 17 boys and 13 girls.

(*a*) 13 are Familial Cataracts of which :
  (i) 6 had Nystagmus
  (ii) 1 had Retinal Detachment after Needling
(*b*) 17 Sporadic cases of which :
  (i) 12 had Nystagmus
  (ii) In 5 cases the mother had German Measles in pregnancy

5 *Cases of Bilateral Ectopia Lentis* 3 boys and 2 girls.

of which

(*a*) 3 are Familial and of these, 2 are sisters with Marfan's Syndrome
(*b*) 1 boy with Ectopia Pupillae

2 *Cases of High Hypermetropia*—both boys.

2 *Cases of Bilateral Buphthalmos*—both girls.

39 *Cases of Syndromes and Multiple Defects.*

(*a*) 2 Marfan's Syndrome—2 sisters
(*b*) 3 Congenital Toxoplasmosis—3 boys
(*c*) 2 Retro-lental Fibroplasia
  (i) 1 girl with Nystagmus and Left Hemiplegia
  (ii) 1 boy with Myopia
(*d*) 12 Bilateral Optic Atrophy
  (i) 1 with Leber's disease
  (ii) 3 with Epilepsy
  (iii) 1 with Mental Retardation
  (iv) 1 with Cerebro-macular Degeneration
  (v) 2 with high Myopia
  (vi) 3 with Nystagmus of which 1 had Hirschsprung's disease
  (vii) 1 with Acrocephaly
(*e*) 5 with defects associated with Maternal German Measles

5 cases with Congenital Cataracts and Nystagmus of which 2 had additional congenital heart disease, and 1 of these has had an operation for 'hole-in-the-heart' defect.

(*f*) 1 Laurence-Moon Syndrome—1 boy
(*g*) 3 of Retinitis Pigmentosa—2 typical and 1 atypical
(*h*) 1 of Galactosaemia with Lamellar Cataract and Myopia
(*i*) 1 of Bilateral Macular Degeneration
(*j*) 2 of Congenital Amblyopia with Hypermetropia
(*k*) 4 of Microphthalmos and Microcorneae with additional defects
  (i) 1 with Bilateral Microphthalmos, Aniridia and Nystagmus
  (ii) 1 with Bilateral Microphthalmos, persistent Hyaloid remains and Nystagmus
  (iii) 1 with Bilateral Microphthelmos, Inferior Uveal Colobomata, Squint, Nystagmus and Dextro-cardia and had operation for Imperforate Anus (the mother had Toxaemia)
  (iv) 1 with Bilateral Microcorneae, Inferior Uveal Colobomata and Nystagmus
(*l*) 1 with Bilateral Irido Cyclitis, extensive Posterior Synechiae and left Convergence
(*m*) 1 with high Myopia, Deafness and Defective Speech
(*n*) 1 with Aniridia, Myopia and Nystagmus

School for the Partially Sighted

Miss L. Cox, Headmistress of the Priestley Smith School reports :—

"The Priestley Smith School for Partially Sighted Children opened in September, 1957, just one year after the Braidwood Special School for Deaf, and the Wilson Stuart School for Physically Handicapped moved to new buildings on the same site. We have thus

completed six school years in our beautiful new buildings, and I am happy to accept Dr. Cohen's invitation to report on them. But first—a note on the name of the school.

Professor Joseph Priestley Smith was an eminent ophthalmological surgeon, Professor Emeritus at our own University of Birmingham, of whom a colleague in a public tribute said 'apart from his researches in Strabismus and Glaucoma, which made his name universally known . . . . . , his masterly attention to detail, his mechanical perfection and his wonderful powers of logical deduction had stamped him as a man of the greatest distinction'. Truly, qualities which we would all do well to emulate.

His son, Mr. David Priestley Smith, himself an eminent ophthalmic surgeon, was present at the official opening and intended to visit the school in action, but unfortunately died before he was able to do so. We would like to extend an invitation to other members of the family who may be interested.

Our school was the first Day Special School to be designed specifically for the education of these children who are all handicapped by defects of vision, but are deemed able to learn by methods involving use of sight. We have some children with dual or multiple handicaps too—as do most special schools.

Control of lighting, daylight and artificial with a standard of 35 lumens at desk level was requested, and we are grateful for the persistence of officials of the local authority in obtaining the Lumenated Ceilings which are standard in all the classrooms. Each classroom has a ceiling cavity painted white to reflect the light from closely banked fluorescent tubes downwards through the corrugated plastic diffuser, thus giving a high standard of lighting with a complete absence of glare. Elsewhere, fluorescent tubes with ribbed glass shades are fitted. The hall, which has good lighting by any ordinary standards, is in marked contrast to the classroom lighting, which is unfortunate—especially in the winter months. The large south-facing windows are fitted with venetian blinds, whilst there is a continuous strip of roof lighting along the north walls.

The effect of this lighting on the work of the children has been most marked. They have gained confidence, and accuracy, speed, and ease of work have generally improved. The decor was most carefully chosen to include colours which retain their character in both artificial lighting and daylight. In the main, egg shell paint was used, and this too has contributed to the 'visual comfort' of the building.

We chose the well tried Lingam pattern desks, designed for the Partially Sighted, which, although not ideal, are essentially practical and sturdy. It is not generally realised how accident prone are the partially sighted—leading to expensive replacements—nor is it realised how much room they need. Although a classroom of 480 square feet for 15 children would seem in the abstract to be generous, it is not large enough for all the activities one would wish to pursue. Storage of large illustrations and apparatus is also a major problem.

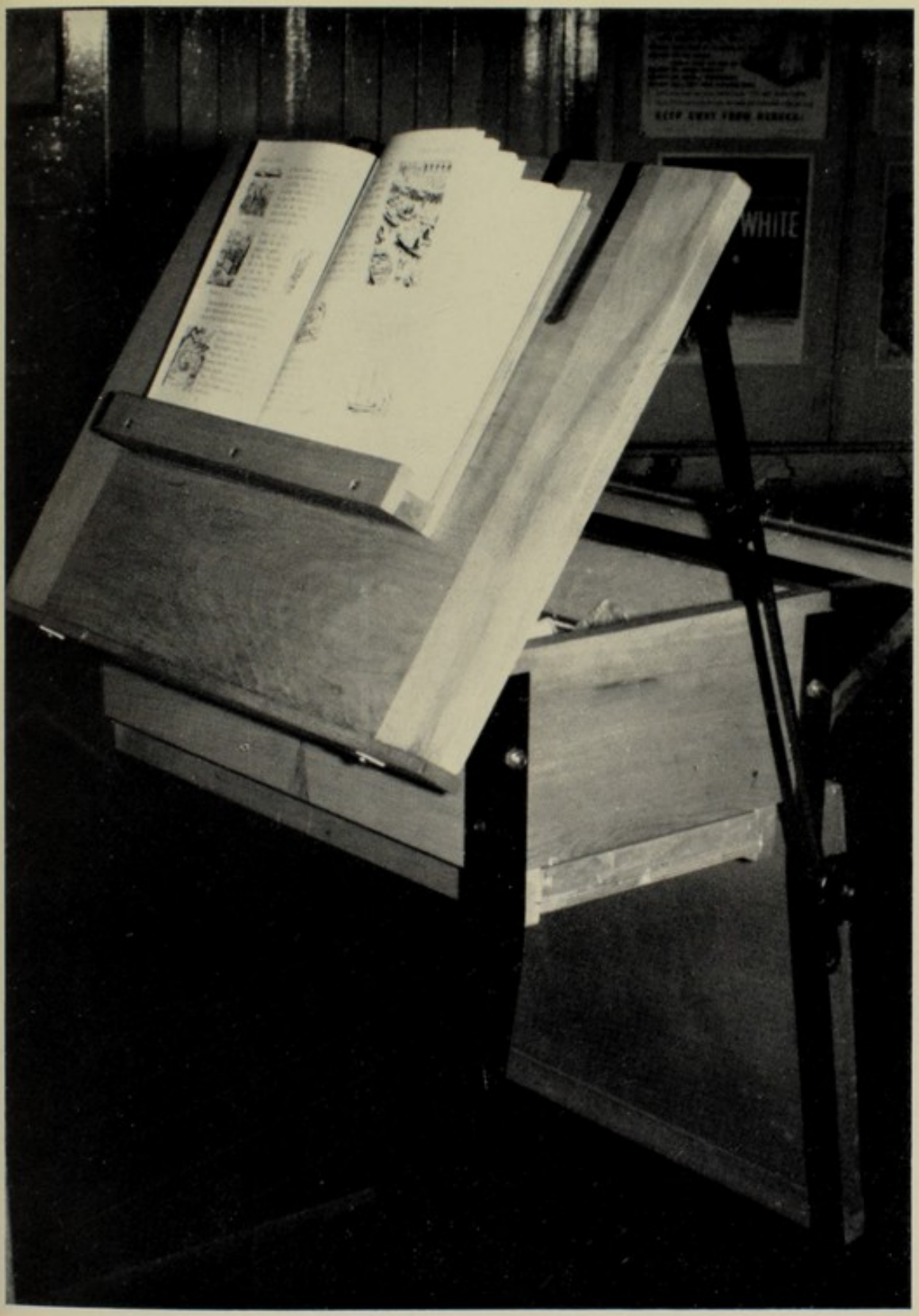
The most useful pieces of special equipment provided are the I.B.M. Electric Executive typewriter (12pt. Bold) which gives a result comparable with print, and an efficient duplicator to reproduce the type script.

The building has naturally attracted considerable attention and we hope that the majority of upwards of 1,500 visitors have become interested in the children and the way they cope with their severe handicap. Our visitors have included Sir Edward Boyle, when Parliamentary Secretary, Sir William Alexander, members of a sub-committee of the Medical Research Council and the Building Research Board Joint Committee on Lighting and Vision, H.M.I.'s, teachers in training, Medical Students, Health Visitors, Overseas Visitors, and former pupils. It will be seen that Visitors, although very welcome, are also a problem: this is true of almost all special schools.

Mr. Tree, to whom we are most grateful for his interest and co-operation, has reported on the eye defects of the children in both schools for the Partially Sighted and also on the provision of special telescopic spectacles. The care with which the children are selected for these, ensures that they fill a very real need. I am grateful to Mr. Challacombe for providing photographs.

I would draw attention here to the varying nature of these eye defects, a wide range of which can be found in any of my classes. Add to this the whole gamut of intelligence from the ascertained educationally subnormal to the near brilliant—coupled with an age range of approximately 2½ years in each class and it will be seen that the class teacher needs to become a specialist, and also why we believe that the Ministry's maximum of fifteen should be reduced.

Of course, by the time the Senior classes are reached, the range of intelligence and even, to some extent, of eye defects is reduced by transfers to ordinary, blind or grammar schools. We welcome the developing grammar school stream at Exhall Grange, Coventry, and hope to send more children than the two at present in residence. Two former pupils are at Chorley Wood, Herts., and others have been to Rowten Castle, and one boy completed his education at Worcester College for the Blind.



Lingam Pattern Myope Desk

Binocular Telescopic Magnifiers

The traditional school play is still a high light of the school year, and gives a welcome opportunity to meet old scholars who are not able to visit at other times. One old boy, who has congenital cataracts, is a professional photographer, and using a miniature camera produced some really first class slides from 1963 production of the Adventures of Tom Sawyer. A surprising choice of occupation and a truly remarkable example of dogged persistence—although by no means the only one to surprise and delight us.

In July, 1962, the school closed early in order that the whole teaching staff might join the Ministry Course for teachers of the Partially Sighted and on the 13th the members of the course visited the school. My most grateful thanks are due to Mrs. Tippetts who worked so hard to see that during our absence all was prepared for this memorable occasion.

It is not possible to record adequately our thanks to all the people who help us, but we are grateful to Dr. Kemp and Nurse Glenn, the staff of the Centre Block and our visiting teacher of dancing.

I am most appreciative of my own staff for their hard work and unfailing loyalty to me and to the children; to the parents for their co-operation and to the children themselves, bless them, for their courage and perseverance.

To the members of the Special Services Committee and officials of the Birmingham Authority we say simply 'Thank you'.

To the George Auden School, about to move to new buildings, we wish every success and happiness.

I congratulate my deputy on his 'elevation' and to both departing members of staff we give our best wishes and bid welcome to their successors. May they open our eyes afresh to the problems of the partially sighted, so that we may go forward with renewed vigour and vision".

BASKERVILLE SCHOOL

Dr. Cary Smallwood sends the following observations :—

"The small numbers of rheumatic children now at Baskerville reflect the low incidence of juvenile rheumatism in the Midlands and the mildness of the disease.

The great value of regular oral penicillin V in the prevention of streptococcal infection and rheumatic relapse is clearly evident in the school".

MEDICAL SUPERVISION OF SPECIAL SCHOOLS

Dr. P. R. Kemp, Assistant Senior School Medical Officer reports :—

"An aspect of the work of ascertainment of handicapped children which has gradually become more manifest is the increase in the number of multiple handicaps to be dealt with. This involves, of course, the necessity to decide which is the major of these handicaps and in what school, if any, the child is most likely to succeed ; relevant to this, it is helpful that the examiner should have an intimate knowledge of the schools concerned and the varying human factors which will affect the child therein. Decisions which have to be taken are best arrived at through the work of a team, experienced and knowledgeable in their chosen spheres, whose object is the attainment of the maximum benefit for the child in question. The decision may be that the child should have a trial in one or other special school. If this is so, it is important that the period of the trial should be indicated ; in many instances, six months under observation in the school setting should enable definite conclusions to be formed. If the ultimate finding is that the child is unsuitable for school, then the parent must be informed in the most tactful and sympathetic way possible, and not left unaware of the fact that the question of educability can be reconsidered at twelve-monthly intervals, and that there is always a ahope—even though sometimes a faint one—of another trial in school.

It has been clear to experienced examiners for many years that scattered among the ranks of the so-called 'severely subnormal' children are to be found certain of them who are odd, remote, and not easily approachable at any level ; one has a strange impression that there may be more to them than appears, but one feels rather helpless about it. Improvements in diagnosis have enabled one to determine the presence of autism, and accordingly to be faced with the problem of treatment of a psychotic child. Facilities for the treatment and the education of such children are woefully inadequate, and it is greatly to be hoped that improvements may be brought about in this direction before too long. Also, in the case of the severely subnormal children who cannot properly be cared for at home and who, in fact, may be causing the greatest stresses therein, who certainly cannot go to any form of school, and who may be unfit even for the admirable day training centres which exist, the shortage of places in hospitals for this speciality is a very grave one and should be remedied as an urgent measure.

Turning to the children who can be described as handicapped, but who are capable of education, it is perhaps unnecessary to call attention to the excellent work which has been and is carried out in the

day and residential schools for the educationally subnormal. Many children who have been unhappy misfits and even possibly outcasts in ordinary schools learn self-respect, pride in their newly acquired achievements, and ultimately, in a great proportion of cases, satisfactory employment after leaving school. Admission to E.S.N. schools must be carefully screened, and medical supervision of such admissions is essential. There must be consideration of the Intelligence Quotient as one factor in the reaction of the child to his environment, and vision, hearing, and general physical condition must be diligently studied ; there must be awareness of the home background and possible psychological traumata which may be affecting our patient in his application to his lessons, his relationship to his teachers, and his behaviour at interviews. Only then can there be reasonable hope that error has been excluded.

Open Air Schools

The term 'open-air school' has a certain archaic ring about it these days but semantic associations with the past must not in any way obscure or diminish appreciation of the value and the necessity for the continued existence of these schools, call them what we will. It is difficult to know how we could face the manifold paediatric and social problems with which we have to deal if there were no such schools. The fact that in recent years there has been a change of emphasis from the frankly physical to the more subtle expressions of ill health has perhaps caused a little misunderstanding in some quarters, but to those of us who have been immersed in this work for many years, it merely appears as a reflection of modern trends in medicine and social development and this indeed it is. Ill health is not a matter of body alone ; it involves mind and spirit also, and as the newer drugs and efficient measures of physical treatment remove some of the older handicaps and ameliorate others, underlying disturbances of well-being tend to reveal themselves in other ways. They may express themselves in definite physical symptoms or they may show in the child's failure to attend school regularly or to make satisfactory progress there in spite of adequate intelligence. In their way, these children suffer just as severely as their predecessors did in the days of the more obvious handicaps. Our thanks are due to the teachers in these schools who co-operate with such understanding and patience, and to the School Nurses who, by their skilled observation and care, and by knowledge of the homes and understanding of the parents' problems, help the children and us so much. Both in day and in residential open-air schools most encouraging results are obtained and many problems are solved, to the benefit of the children and often to that of the parents also. As is inevitable, some failures occur. Some parents tend to weaken and become unduly sentimental when a child who is feeling homesick in a boarding school wants to return home.

This feeling of homesickness is often merely a transient one, and the most helpful parent is the one who supports us in keeping the child until the handicap which necessitated admission to a boarding school has been sufficiently resolved or eliminated as to justify discharge. The choice which has to be made by the examiner in the first place between day and residential school is not an easy one. There are some clear-cut cases, of course—for example in the delicate child from the home which has been broken by death or separation— here a residential school does seem essential, but in other cases one has to consider other factors. While in some sections of society the boarding school may be a family tradition or status symbol, there are considerable sections in which it is no such thing. In these sections it it the symbol of parental rejection, summarised in relation to the child by the phrase 'having him put away'. It is wrong to attempt to force a child into a boarding school against the real wishes of the parents. A child does not flourish when he is made to feel resentful at being torn from his home background. In fact he is likely to abscond, sometimes repeatedly. It is a mistake to believe that a residential open-air school is necessarily *essential* in certain conditions of ill health ; very good results can be obtained in very carefully chosen cases in day open-air schools. In fact there are situations in which referral to a residential school may be quite the wrong thing to do. If any testimony to the continued value of our open-air schools in general is necessary, it lies in the waiting lists which are long and which are built up by many referrals from the people who best know the value of these therapeutic centres, e.g., the family practitioners, the hospitals of the City, our colleagues the school medical officers, the teachers, the welfare officers and many others.

Schools for the Physically Handicapped

The trend towards the admission of more severely handicapped children than was the case in the past, which has been noted in previous years, continues. Advances in treatment have been responsible for eliminating or greatly improving some of the conditions which in earlier years would have necessitated special education of this sort for the children concerned. Such children are now able to cope with ordinary schools. Those children whose handicap is too severe for considerable amelioration remain, and form a large proportion of the population of the schools for the physically handicapped. This fact puts an added strain on the staffs of these schools, and the task to be tackled by the team of teachers, nurses, physiotherapists and children's helpers is indeed heavy. Their work is entirely admirable ; nor must we forget the drivers of the special buses who, with kindness and understanding, do so much to help us with the children.

In addition to the schools mentioned already, the usual visits have been paid to the schools for the deaf, schools for the partially sighted and the day training centres etc. Contact has been maintained with the Supervisor of Home Teaching, and the progress of the children who require this form of education has been discussed at intervals. The work done has been most valuable and many difficult cases have been helped. Regular medical exercises have been given by our Remedial Gymnasts in as many of our special schools as possible during the year and good results obtained. I am grateful for the continued support and the conscientious work done by my colleague Dr. J. B. Mole throughout the year, also to the hospitals of the City and their staffs for their reports on cases which they furnish so readily.

Visits and demonstrations in special schools have been arranged for senior medical students and candidates for the Diploma in Child Health, in co-operation with the Professor of Paediatrics in the University of Birmingham. Lectures have been given to students in the University and Teachers Training College courses for teachers of the educationally subnormal and physically handicapped, to Student Health Visitors and to students in the Home Office course for training in child care".

SPEECH THERAPY IN SPECIAL SCHOOLS

Miss E. S. Sprayson, Senior Speech Therapist, reports :—

"In September 1961 it was necessary, due to shortage of staff, to discontinue regular visits to many Special Schools. From September to December the following day schools were visited regularly :—

Marsh Hill Open Air School

Uffculme Open Air School

The Victoria School for Physically Handicapped Children

The Wilson Stuart School for Physically Handicapped Children.

Other Special Schools were visited on an 'advisory' basis. This, of course, is quite inadequate in the cases where children need the specialized help of the Speech Therapist. It should be pointed out, however, that many of the children would benefit greatly if the staffs of these schools had sufficient time to give the children specific speech and language work throughout the school. It is not for the speech therapist to carry out speech training.

It should be noted that of the 276 receiving individual treatment during the year a big percentage were only seen occasionally from September to December.

SPECIAL SCHOOL STATISTICS

	1962	*1961*
Number of children receiving individual treatment ..	276	273
Number of children receiving treatment in class ..	20	32
Number of children referred for treatment	112	172
Number of children admitted for treatment	94	108
Number of cases where speech therapy was found to be unnecessary	31	38
Number of children discharged	78	103
Number of cases on the waiting list	25	38
Number of interviews with parents or guardians ..	31	24
Number of visitors to Special Schools	8	2
Number of advisory visits to schools	26	2
Number of home visits	1	9

SUMMER HOLIDAYS FOR HANDICAPPED CHILDREN

Four children from schools for the physically handicapped, received financial assistance to enable them to spend two weeks at Holiday Camps at Worthing and St. Leonards-on-Sea, by arrangement with the Invalid Children's Aid Association.

MEDICAL SUPERVISION OF DISABLED PERSONS

Ministry of Labour's Scheme for the Training of Disabled Persons

In accordance with the request by the Principal Medical Officer of the Ministry of Education, the school medical officers keep the students who are being trained under the scheme at a Technical College, under medical supervision.

During the year two women and twenty-five men entered the Technical College and the School Medical Officer kept them under observation in the way suggested.

FURTHER EDUCATION OF HANDICAPPED PUPILS

A number of handicapped pupils who have reached the normal school leaving age, received further education and/or training. One such pupil is being taught boot repairing at the Derwen Cripples Training College, three are receiving further education at the Queen Alexandra Technical College for the Blind, Birmingham, and another is being educated at Worcester College for the Blind.

MARTINEAU HOUSE, BOGNOR REGIS

During 1962, 19 parties, consisting in the main of 24 children from special schools of various types, visited the School for periods of 14 days.

In accordance with established practice, each group was accompanied by teachers from the visiting school who were able to assist the residential teacher in charge.

The School provides a valuable contribution to the physical and educational welfare of the handicapped pupils.

It is a pleasure to acknowledge the attention given by the Matron and the interest shown by the visiting Medical Officer, Dr. D. D. Hay.

HOME AND HOSPITAL TUITION

The Committee provide home tuition for severely handicapped children under Section 56 of the Education Act, 1944. At the end of the year, 132 children were being helped in this way.

In addition, children received tuition at the following hospitals :—

Children's Hospital, Birmingham	226
Moseley Hall Hospital	59
Dudley Road Hospital and Skin Hospital	44
Accident Hospital	352
Forelands Hospital, Bromsgrove	83
Woodlands Hospital	481
Yardley Green Hospital	146

CEREBRAL PALSY

The arrangements for the ascertainment and care of the children suffering from cerebral palsy, outlined in previous reports, have been continued.

Through the courtesy of the Midland Spastic Association, the following statistics relating to Birmingham children, as at 31st December, 1962, can be given.

UNDER 5 YEARS

Day Cerebral Palsy School	16
Normal Nursery School	2
Hospital	0
At Home—outpatient treatment	21
—no treatment	16
	55

5 TO 15 YEARS

Day Provision :

Cerebral Palsy School	32
Physically Handicapped School	83
Deaf School	6
Open Air School	1
Partially Sighted School	1
E.S.N. School	8
Normal School	81
Home Tuition	2
Junior Training Centre	25
Home Training	4

Residential Provision :

Cerebral Palsy School	2
Physically Handicapped School	3
Open Air School	3
Blind School	1
E.S.N. School	4
Hospital School	4
Mental Institution	23

At Home :

Educable—awaiting placement	4
Ineducable	19
	306

OVER 15 YEARS

Still at schools	26

A large proportion of the pupils at the Carlson House Day Cerebral Palsy School are maintained by the Birmingham Education Authority and a School Medical Officer and a School Nurse visit the School regularly.

The British Council for the Welfare of Spastics, ever mindful of the problems relating to this handicap held a two-day medical conference on the assessment and management of cerebral palsy in the pre-school child in July in Manchester. The programme was sponsored by the Department of Child Health in the University of Manchester and the Professor of Child Health, Professor Gaisford acted as Chairman. An invitation had been extended to the Senior School Medical Officer to attend, and with the permission of the Committee, he was able to accept.

EMPLOYMENT AND AFTER-CARE OF HANDICAPPED YOUNG PEOPLE

Throughout the period under review officers of the Youth Employment Branch interviewed 345 boys and girls in the city's Special Schools, gave them careers advice and subsequently helped them to find suitable work. A similar service was provided for boys and girls in residential special schools and for those who for various reasons had been receiving home teaching or teaching in hospitals.

In addition to the work amongst school leavers many disabled young people who had left school sought the help and advice of the Youth Employment Branch. In a year of steadily worsening employment opportunities the advising and placing of these young people has involved exceptional difficulty and has taken up a very considerable amount of time but it is pleasing to report that as a consequence of the efforts made on their behalf only a small number of the most severely handicapped remained unemployed for any considerable period. Full use has been made of the facilities of the Industrial Rehabilitation Unit and of the various training courses available to disabled persons. For example, a blind girl has been trained as a telephonist, two deaf girls have attended a course in copy typing and a severely disabled spastic boy is undergoing clerical training.

The number of young persons registered as disabled shows a slight increase on the previous year but this is probably accounted for by the increase in the school leaving population.

Placing disabled young people in employment often involves a very high degree of co-operation between a number of interested workers and agencies and during the year there has been many examples of this co-operation between Youth Employment Officers and doctors, almoners, social workers, employers and voluntary bodies. Without this co-operation little that has been achieved would have been possible.

YOUNG PEOPLE REGISTERED AS DISABLED ON 31.12.62
(1961 Figures in brackets)

Disability	*Boys*	*Girls*	*Total*
SURGICAL :			
Amputation of one or both limbs	2 (3)	1 (3)	3 (6)
Injuries, diseases and deformities of trunk or limbs	17 (7)	15 (10)	32 (17)
Spine injuries and diseases (not T.B.)	3 (4)	6 (4)	9 (8)
Tuberculosis—Surgical	– (1)	2 (1)	2 (2)
MEDICAL :			
Arthritis and Rheumatism	– (1)	2 (2)	2 (3)
Diseases of heart and circulatory systems	3 (2)	6 (3)	9 (5)
Diseases of Skin, genito-urinary and respiratory system (not T.B.)	3 (2)	6 (3)	9 (5)
Epilepsy	14 (7)	6 (7)	20 (14)
Other Organic Nervous Diseases	15 (8)	12 (14)	27 (22)
Tuberculosis—pulmonary	1 (2)	– (4)	1 (6)
Diseases of digestive system	– (1)	– (–)	– (1)
PSYCHIATRIC :			
Imperfect development of the mind	5 (3)	4 (3)	9 (6)
Other mental or nervous disorders	1 (–)	3 (1)	4 (1)
OTHER GENERAL DISEASES AND INJURIES			
Defects of eyes and ears	19 (24)	22 (30)	41 (54)
Anaemia, leukaemia, haempohilia, diabetes, etc.	5 (6)	3 (2)	8 (8)
TOTAL	88 (71)	88 (87)	176 (158

No. of young people who registered as disabled for the first time during the period 1.1.62—31.12.62—Boys 48 (42) ; Girls 52 (53) ; Total—100 (95). (1961 figures in brackets).

SPECIAL SERVICES AFTER-CARE SECTION

In 1962 the After-Care Staff continued to be responsible for the care of former pupils of schools for the educationally subnormal and a few from other special schools. They also visited the homes of all children excluded from school under Section 57(4) of the Education Act, 1944. The section also administered the special training centres for severely subnormal children and for older girls and women. The visiting of the children excluded from school and organising of the training centres are carried on by the Special Services Sub-Committee acting as agents for the Public Health Committee.

Numbers under Supervision

In 1962 a total of 1,463 children and young persons were in care of the After-Care Staff. The number of new cases added in 1962 was 310 made up of 232 school leavers and 78 children excluded from school. As in the last few years a number of young people of 18 years or over were discharged from supervision or passed over to the care of the Health Committee visitors.

Special Training Centres

During 1962 eight Junior Special Training Centres were maintained with 425 places for boys and girls between 5 and 16 years and the Senior Girls Special Training Centre with 100 places for girls and women. Unfortunately there were still waiting lists for both the Junior and Senior Centres.

On the 2nd April 1962, the first new purpose built Training Centre in the City was started :—the Fox Hollies Special Training Centre offering 60 places for juniors. This was officially opened by the Chairman of the Public Health Committee, Alderman Bowen on 9th June, 1962.

During the year—two Junior Special Training Centres spent a week's holiday at Windmill House, Weatheroak, and a party of girls from a Senior Girls' Training Centre went for a week to Rhyl. In addition the usual day outings were held in the summer and parties at Christmas.

Home Training

Training at home was given to 45 boys and girls who were awaiting admission to a Special Training Centre.

Visiting

Visiting of homes was carried on as before by five After-Care Visitors working in their own districts. In every case the visitor attempts to become a friend to the family and not just an official. Every effort is made to make a good contact with the family from the first visit. Close co-operation was maintained with the Health Committee's visitors as in the past ; and considerable help was made available to the After-Care Staff by social workers and officials in the City—both from voluntary and statutory bodies.

MEDICAL INSPECTION AND TREATMENT

Return for the year ended 31st December, 1962

Number of pupils on registers of maintained and assisted Primary and Secondary Schools (including Nursery and Special Schools) in January 1963, as in Forms 7, 7M and 11 Schools 177,293

PART I—MEDICAL INSPECTION OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS (INCLUDING NURSERY AND SPECIAL SCHOOLS)

TABLE A.—PERIODIC MEDICAL INSPECTIONS

Age Groups inspected (By year of Birth)	*No. of Pupils Inspected*	*Physical Condition of Pupils Inspected*				*Pupils found to require treatment (excluding dental diseases and infestation with vermin)*		
		Satisfactory		*Unsatisfactory*				
		No.	*% of Col 2*	*No.*	*% of Col. 2*	*For defective vision (excluding squint)*	*For any other condition recorded at Part II*	*Total Individual pupils*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1958 and later	1,434	1,420	99.02	14	0.98	15	315	311
1957.. ..	5,516	5,415	98.16	101	1.84	103	1,512	1,493
1956.. ..	5,581	5,454	97.72	127	2.28	176	1,570	1,574
1955.. ..	1,838	1,796	97.71	42	2.29	104	516	560
1954.. ..	396	381	96.21	15	3.79	37	140	152
1953.. ..	282	268	95.03	14	4.97	37	130	125
1952.. ..	2,815	2,780	98.75	35	1.25	328	667	898
1951.. ..	8.505	8,343	98.09	162	1.91	1,080	2,058	2,716
1950.. ..	3,182	3,118	97.98	64	2.02	379	776	1,041
1949.. ..	236	220	93.22	16	6.78	54	127	157
1948.. ..	3,401	3,299	97.00	102	3.00	502	879	1,085
1947 and earlier	12,670	12,504	98.68	166	1.32	2,110	2,596	4,130
TOTAL ..	45,856	44,998	98.12	858	1.88	4,925	11,286	14,242

TABLE B.—OTHER INSPECTIONS

Number of Special Inspections	23,443
Number of Re-inspections..	20,523
TOTAL	43,966

TABLE C.—INFESTATION WITH VERMIN

(*a*)	Total number of individual examinations of pupils in schools by school nurses or other authorised persons	337,063
(*b*)	Total number of individual pupils found to be infested	15,892
(*c*)	Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2), Education Act, 1944)	2,419
(*d*)	Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3), Education Act, 1944)	2,124

TABLE D.—SCREENING TESTS OF VISION AND HEARING

1. (*a*) Is the vision of entrants tested ? *Yes.*
   (*b*) If so, how soon after entry is this done ? *During 1st term as far as possible.*
2. If the vision of entrants is not tested, at what age is the first vision test carried out ? —
3. How frequently is vision testing repeated throughout a child's school life ?
   At least alternate years.

4. (*a*) Is colour vision testing undertaken ? *Yes.*
(*b*) If so, at what age ? 10+
(*c*) Are both boys and girls tested ? *Yes.*
5. By whom is vision and colour testing carried out ?
Vision by nurses. Colour test by S.M.O.'s
6. (*a*) Is audiometric testing of entrants carried out ? *Yes.*
(*b*) If so, how soon after entry is this done ? 5½—6½ *years.*
7. If the hearing of entrants is not tested, at what age is the first audiometric test carried out ?
—
8. By whom is audiometric testing carried out ? *Specialist nurses.*

PART II—DEFECTS FOUND BY MEDICAL INSPECTION DURING THE YEAR

TABLE A.—PERIODIC INSPECTIONS

Defect Code No. (1)	*Defect or Disease* (2)		*Periodic Inspections*			
			Entrants	*Leavers*	*Others*	*Total*
4	Skin	T	392	967	591	1,950
		O	120	184	195	499
5	Eyes—a. Vision	T	395	2,646	1,884	4,925
		O	248	449	436	1,133
	b. Squint	T	530	230	378	1,138
		O	152	47	122	321
	c. Other	T	90	88	150	328
		O	43	177	118	338
6	Ears— a. Hearing ..	T	101	90	126	317
		O	157	74	152	383
	b. Otitis Media ..	T	114	70	86	270
		O	144	65	86	295
	c. Other	T	105	194	150	449
		O	36	38	103	177
7	Nose and Throat	T	685	280	452	1,417
		O	995	303	572	1,870
8	Speech	T	177	36	127	340
		O	342	47	136	525
9	Lymphatic Glands ..	T	14	3	13	30
		O	165	16	76	257
10	Heart	T	27	45	25	97
		O	237	179	195	611
11	Lungs	T	431	142	302	875
		O	324	241	295	860
12	Developmental— a. Hernia	T	46	12	44	102
		O	77	7	39	123
	b. Other	T	61	141	171	373
		O	183	114	204	501
13	Orthopaedic—a. Posture	T	39	207	223	469
		O	95	310	302	707
	b. Feet ..	T	235	408	478	1,121
		O	340	521	391	1,252
	c. Other	T	123	170	184	477
		O	223	180	276	679
14	Nervous System—a. Epilepsy	T	27	41	35	103
		O	50	16	29	95
	b. Other	T	38	32	43	113
		O	94	39	74	207
15	Psychological—a. Development	T	30	11	29	70
		O	141	111	338	590
	b. Stability	T	109	42	148	299
		O	360	178	423	961
16	Abdomen	T	30	37	52	119
		O	45	34	53	132
17	Other	T	482	784	744	2,010
		O	185	164	246	595

T = Number of pupils found to require treatment
O = Number of pupils found to require observation

TABLE B.—SPECIAL INSPECTIONS

Defect Code No. (1)	*Defect or Disease* (2)	Special Inspections	
		Requiring Treatment (3)	*Requiring Observation* (4)
4	Skin	4,881	120
5	Eyes—		
	(*a*) Vision	1,236	218
	(*b*) Squint	196	35
	(*c*) Other	735	41
6	Ears—		
	(*a*) Hearing	231	72
	(*b*) Otitis Media	486	22
	(*c*) Other	424	29
7	Nose and Throat	926	138
8	Speech	248	58
9	Lymphatic Glands	40	14
10	Heart	74	75
11	Lungs	567	128
12	Developmental—		
	(*a*) Hernia	16	6
	(*b*) Other	127	39
13	Orthopaedic—		
	(*a*) Posture	228	58
	(*b*) Feet	606	118
	(*c*) Other	415	102
14	Nervous System—		
	(*a*) Epilepsy	34	10
	(*b*) Other	89	25
15	Psychological—		
	(*a*) Development	72	40
	(*b*) Stability	399	170
16	Abdomen	192	56
17	Other	3,369	369

PART III.—TREATMENT OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS (INCLUDING NURSERY AND SPECIAL SCHOOLS)

TABLE A.—EYE DISEASES, DEFECTIVE VISION AND SQUINT

	Number of cases known to have been dealt with
External and other, excluding errors of refraction and squint	1,556
Errors of refraction (including squint)	7,195
Total	8,751
Number of pupils for whom spectacles were prescribed	12,188

TABLE B.—DISEASES AND DEFECTS OF EAR, NOSE AND THROAT

	Number of cases known to have been dealt with
Received operative treatment :	
(*a*) for diseases of the ear	21
(*b*) for adenoids and chronic tonsillitis	1,981
(*c*) for other nose and throat conditions	126
Received other forms of treatment	2,498
Total	4,626
Total number of pupils in schools who are known to have been provided with hearing aids :	
(*a*) in 1962	41
(*b*) in previous years	361

TABLE C.—ORTHOPAEDIC AND POSTURAL DEFECTS

		Number of cases known to have been treated
(*a*)	Pupils treated at clinics or out-patients departments ..	4,390
(*b*)	Pupils treated at school for postural defects	811
	TOTAL	5,201

TABLE D.—DISEASES OF THE SKIN

(excluding uncleanliness, for which see Table C of Part I)

	Number of cases known to have been treated
Ringworm—Scalp	1
Ringworm—Body	9
Scabies	248
Impetigo	560
Other Skin Diseases	5,408
TOTAL	6,226

TABLE E.—CHILD GUIDANCE TREATMENT

Pupils treated at Child Guidance clinics	581

TABLE F.—SPEECH THERAPY

Pupils treated by speech therapists	1,331

TABLE G.—OTHER TREATMENT GIVEN

		Number of cases known to have been dealt with
(*a*)	Pupils with minor ailments	15,230
(*b*)	Pupils who received convalescent treatment under School Health Service arrangements	111
(*c*)	Pupils who received B.C.G. vaccination	14,887
(*d*)	Other than (*a*), (*b*) and (*c*) above	
	Asthma	406
	U.V.R.	2,020
	Chiropody	517
	TOTAL (*a*)—(*d*)	33,171

STAFF OF THE SCHOOL DENTAL SERVICE

Officers employed on a salary basis

No. in terms of full-time officers employed in the School Dental Service.

	No. of Officers	*Employed on morning and afternoon sessions*	
		Dental work (other than ortho-dontics)	*Ortho-dontics*
Principal School Dental Officer	1	1.00	—
Dental Officers (including Orthodontists)	12	12.00	—
Officers employed on a sessional basis			
Dental Officers (including Orthodontists)	31	9.80	0.80
TOTALS	44	22.8	0.80

Other staff employed

No. in terms of full-time officers employed in the School Dental Service.

	No. of Officers	*Employed on morning and afternoon sessions*	
		Dental work (other than orthodontics	*Orthodontics*
Dental Surgery Assistants	37	35.00	2.00
Other staff : Anaesthetists	12	3.00	—
Senior Dental Technician	1	—	1.00
Dental Technician	1	1.00	—

2. SCHOOL DENTAL CLINICS

(*a*)	No. of clinics where dental treatment is given directly by the Authority	17
	Dental Surgeries	28
(*b*)	Residential Special Schools, children are examined and treatment given on the school premises	

DENTAL INSPECTION AND TREATMENT

	Number of pupils on the registers of maintained primary and secondary schools (including nursery and special schools) in January, 1963, as in Forms 7, 7M and 11 Schools.	177,293
(1)	Number of pupils inspected by the Authority's Dental Officers :—	
(*a*)	At Periodic Inspections	151,471
(*b*)	As Specials	18,494
	TOTAL ..	169,965
(2)	Number found to require treatment	103,175
(3)	Number offered treatment	87,509
(4)	Number actually treated	43,142

(*b*) DENTAL WORK (other than orthodontics)

(1)	Number of attendances made by pupils for treatment, excluding those recorded at (*c*) (1) below	81,098
(2)	Half days devoted to :—	
(*a*)	Periodic (School) Inspection	615
(*b*)	Treatment	9,822
	TOTAL ..	10,437
(3)	Fillings :—	
(*a*)	Permanent teeth	50,492
(*b*)	Temporary Teeth	1,705
	TOTAL ..	52,197
(4)	Number of Teeth Filled :—	
(*a*)	Permanent Teeth	41,499
(*b*)	Temporary Teeth	1,550
	TOTAL	43,049

(5) Extractions :—

(*a*)	Permanent Teeth	21,244
(*b*)	Temporary Teeth	46,411
	TOTAL	67,655

(6)	Administration of general anaesthetics for extraction	25,628
(7)	Number of pupils supplied with artificial teeth	508
(8)	Other operations :—	
(*a*)	Permanent Teeth	20,500
(*b*)	Temporary Teeth	1,270
	TOTAL ..	21,770

(*c*) Orthodontics :—

(*a*)	Number of attendances made by pupils for orthodontic treatment	6,115
(*b*)	Half days devoted to orthodontic treatment	559
(*c*)	Cases commenced during the year	223
(*d*)	Cases brought froward from the previous year	105
(*e*)	Cases completed during the year	137
(*f*)	Cases discontinued during the year	89
(*g*)	Number of pupils treated by means of appliances	594
(*h*)	Number of removable appliances fitted	439
(*i*)	Number of fixed appliances fitted	9

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