

**[Report 1961] / School Health Service, Newcastle-upon-Tyne.**

**Contributors**

Newcastle upon Tyne (England). School Health Service.

**Publication/Creation**

1961

**Persistent URL**

<https://wellcomecollection.org/works/tfm5newc>

**License and attribution**

You have permission to make copies of this work under a Creative Commons, Attribution license.

This licence permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See the Legal Code for further information.

Image source should be attributed as specified in the full catalogue record. If no source is given the image should be attributed to Wellcome Collection.



Wellcome Collection  
183 Euston Road  
London NW1 2BE UK  
T +44 (0)20 7611 8722  
E [library@wellcomecollection.org](mailto:library@wellcomecollection.org)  
<https://wellcomecollection.org>

AC 4478 DEC 1962

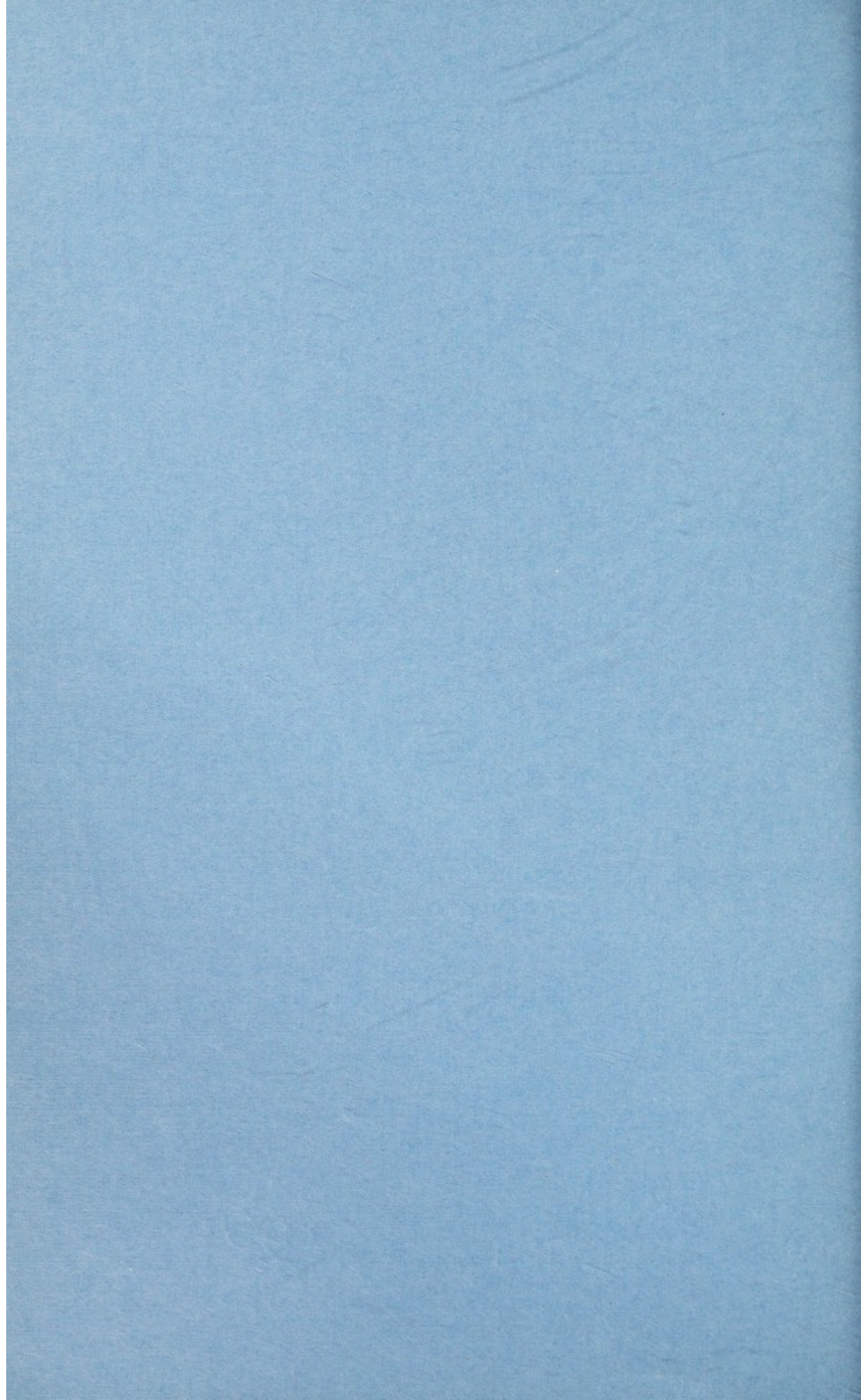
*Dup.*

NEWCASTLE UPON TYNE  
EDUCATION COMMITTEE

# ANNUAL REPORT

THE SCHOOL  
HEALTH SERVICE

1961



CITY AND COUNTY OF NEWCASTLE UPON TYNE

# ANNUAL REPORT

OF THE

PRINCIPAL SCHOOL MEDICAL OFFICER

R. C. M. PEARSON, M.D., M.R.C.P., D.P.H.

1961

SCHOOL HEALTH SERVICE

## PREFACE

---

TO THE CHAIRMAN AND MEMBERS OF THE EDUCATION COMMITTEE

Ladies and Gentlemen,

I have the honour to present to you my Annual Report for the School Health Service for the year 1961, the fifty-second since the series began in 1907.

The year has been uneventful in a way because there is no record in the Report of a major outbreak of infectious disease nor has any radical change taken place in the administration of the Service. There is, however, a rumble of changes to come, some of which will develop the Service from a rather routine outlook towards the use of its available medical, nursing and auxilliary manpower where and when it is most needed. Even greater emphasis in the medical examination of entrants with more discussion of findings with parents and teaching staff seems warranted now that so much is known or can be elucidated about this age group. Parents need not only reassurance that all is well, but explanations and guidance on many points especially those of an emotional nature. The provision of medical rooms in new schools is a great help to those carrying out medical examination at schools and in providing facilities for school nurses to work in schools in close collaboration with the teaching staff. Under such working conditions a number of points come up which are well worth discussion and are of considerable benefit eventually to the pupils concerned both individually and often as a group.

A careful study of hearing disabilities has been made, and the follow-up of hearing aids has continued. Close touch with the Hearing Assessment Clinic under Mr. Munro Black at the Fleming Memorial Hospital is being maintained.

Special Clinics for disability such as Asthma and Enuresis are being developed and, by noting the results, a clearer understanding of such disorders is being obtained. A frequent review of Handicapped children is essential and such studies as the changes in intelligence quotient, as recorded in the Appendix, are important. So too is the close watch on the type of child being admitted to the Open Air School, how long they remain there and whether their stay follows closely their medical treatment by Consultant Paediatricians.

The study, by a pilot survey in the Kenton area, of possible ways in which the administration of the School Health Service could develop, could not have taken place without enthusiastic support of the Head Teachers in that area. My thanks, along with those of my Staff, go to all who co-operated in this Survey, not forgetting the parents who willingly accepted changing methods of selection of children for medical examination and gave their consent to the British Tuberculosis Association Trial of the response by children to two types of tuberculin. It was a busy year in the Kenton area and the Report which was later submitted to the Education Committee is included in Part III of this Report for the purpose of continuity.

Speech Therapy in the City is provided not only by the Education Authority but also by the Hospital Authorities at the Royal Victoria Infirmary and at the Newcastle General Hospital Group. It is most important that the services of the Speech Therapists should be co-ordinated, and also that children recommended for therapy should be brought by their parents regularly because otherwise the time of the therapists, which could well be spent with other children, is wasted if there is no continuity.

It has long been evident to the enthusiast that the development of Health Education in schools could play a major part in the health and happiness not only of school children but of the same individuals as they mature and go forward into their working days. Teaching staff are trained in this subject but until recently no definite link existed between the Health Department's Educational Services and the Teaching Staff of schools. A suggestion put forward to Head Teacher representatives that a small working party might be developed to consider the aims and objects of Health Education in Schools, and how best they could be co-ordinated within the school curriculum, was willingly accepted and commenced its study during the year.

It seems an opportune moment to record the considerable help given me by the meetings arranged with Head Teacher representatives and the Staff of the Education Department each term, and to say how much I value these contacts which permit a regular exchange of views, the transmission of information and preliminary discussion of future developments.

I am indebted to Dr. Sainsbury for the preparation of most of the material in this Report and also to those who have contributed individual sections. In my regular meetings with medical and nursing staff I have noted their enthusiasm to develop the School Health Service, and to make any changes which seem to be to the benefit of the children. So, to the Staff generally, I am grateful for their loyal co-operation and enthusiastic support.

The Director of Education, his Staff and the Teaching Staff in schools have been of considerable assistance to all who work in the School Health Service and I am grateful to them for the willing manner in which such help has been given.

To the Chairman and Vice-Chairman of the Education Committee and of the School Health Service and After Care Sub-Committee, I record my thanks for the support I have received during the year.

I have the honour to be,

Your obedient Servant,

R. C. M. PEARSON,

*Principal School Medical Officer.*

*June, 1962*

SCHOOL HEALTH SERVICES AND CHILD CARE  
SUB-COMMITTEE — 1961

---

*Chairman :*

Councillor Mrs. C. M. Lewcock

*Chairman of the Education Committee :*

Alderman Mrs. G. Robson, J.P.

*Members :*

Alderman P. H. Renwick, J.P.

Councillor R. C. Brown

Councillor Mrs. M. E. Graham, M.B.E.

Councillor G. Hall, J.P.

Councillor Mrs. I. McCambridge, J.P.

Councillor S. Rees

Councillor Mrs. D. A. Starkey

Councillor Mrs. A. L. Storey, M.B.E.

Councillor Mrs. A. Wynne-Jones, B.A.

Mr. R. F. Butcher

Mrs. A. M. G. Curtis, J.P.

Miss N. Robinson

Miss E. B. Temple

## CONTENTS

PREFACE

STAFF

ADMINISTRATION:

GENERAL STATISTICS:

*Part*

1. MEDICAL INSPECTION

Periodic Inspections : Defects Found : Physical Measurements : Other Inspections : Hygiene Inspections.

2. SCHOOL CLINICS

Premises : Arrangements : General Work in School Clinics : Home Visits and Escort Duty.

*Special Clinics* : Ophthalmic : Orthopaedic : Hearing Assessment : Asthma : Enuresis : Skin.

3. THE KENTON PILOT SCHEME

4. REPORT OF THE PRINCIPAL SCHOOL DENTAL OFFICER

5. HANDICAPPED PUPILS

General : Statistics : Residential Schools : Handicapped Young Persons : Speech Therapy.

6. CONTAGIOUS DISEASE AND ITS PREVENTION

A. Notifiable Disease : Contagious Skin Disease.

B. Immunisation : Poliomyelitis : Diphtheria : Tetanus : Yellow Fever : Tuberculosis.

C. Other methods of Prevention.

7. OUR CONTEMPORARIES

### APPENDIX

The Behaviour of the Intelligence Quotient of Retarded Pupils during school life.

## SCHOOL HEALTH SERVICE STAFF

*Principal School Medical Officer :* Dr. R. C. M. Pearson

*Senior School Medical Officer :* Dr. H. S. K. Sainsbury

*School Medical Officers :*

*Full-Time*

Dr. M. Anderson

Dr. B. Buckley

Dr. H. M. Dixon

*Part-Time*

Dr. A. R. Buchan

Dr. G. V. Griffin

Dr. J. H. Hindmarsh

Dr. J. Mather

Dr. M. R. Mellor

Dr. I. Robinson

*(Special Schools)*

*Principal School Dental Officer :* Dr. J. C. Brown

*School Dental Officers :*

*Full-Time*

Mr. J. Elder

Miss A. M. M. Greig

Mr. M. Ralph

*Part-Time*

Mr. B. Adair

Mr. J. Christie

Mr. A. Dunlop

Mr. J. Egan

Mr. W. Hodge

Mr. W. R. Peters-Jones

Mr. P. Rattray

Mr. C. T. Tinn

*Orthodontist :* Mr. D. M. R. Crombie

*Anaesthetists :* Dr. S. Mark

Dr. W. Shaw

*Technicians :* Mr. E. Robson

Mr. J. Patterson

*Dental Attendants :* 10

*Superintendent School Nurse :* Miss E. D. Coulson

*School Nurses :* 22 *Full-time*

1 *Part-time*

*Nursing Helpers :* 10

*Superintendent Physiotherapist :* Miss O. Webb

*Physiotherapists :* *Full-Time*

*Part-Time*

Mrs. D. Bell

Mr. C. Cree

Miss W. Dix

Mrs. J. Sandilands

*Senior Speech Therapist :* Mrs. B. Strong

*Speech Therapists :* Mrs. S. M. Gilmour

Mrs. S. M. Skinner

*Consultants :*

*Ophthalmologists :* Dr. J. D. Milne

Dr. L. W. Davies

Dr. V. G. O'Leary

*Orthopaedic Surgeons :*

Mr. C. C. Michael James

Dr. B. J. Robson

*Chief Clerk :* Miss J. S. Hills

*Clerks :* 6 *Dental :* 1 *Clinic Clerks :* 5

The following appointments were vacant at the end of the Year :—

Oral Hygienist .. ..	1
Physiotherapists .. ..	2
Psychiatric Social Worker ..	1
Educational Psychologist ..	1

## COURSES AND REFRESHER COURSES

The following staff attended Courses or Refresher Courses :	
Dr. M. R. Mellor	Course for the Diploma in Public Health, organised by the University of Durham.
Dr. A. R. Buchan Dr. G. V. Griffin	Course for Certifying Medical Officers, organised by the University of Durham, and are now recognised by the Ministry for the purpose of ascertainment of Handicapped Pupils.
Dr. H. Sainsbury	Course and Lectures on 'Selection and Use of Deaf Equipment,' organised by Westrex Co. Ltd., London.
Mr. D. M. R. Crombie	Intensive Orthodontic Course, organised by the Sutherland Dental School, Newcastle.
Nursing Assistants	Nursing Course of the British Red Cross Society. The following were successful in the examination :— Mrs. J. Forster Miss F. Goldsworthy Mrs. N. Green Mrs. R. McEwen Miss E. Padden Mrs. L. Tindall Mrs. M. Virtue Mrs. S. White Mrs. O. Wood

## IN-SERVICE TRAINING

A Course organised by Dr. P. H. Connell, Director of the Child Psychiatry Unit, was concluded in the early months of the year in a series of Group discussions in which members of the School Health Service and Child Health Department participated.

## ADMINISTRATION

The organisation of the Service has continued unchanged since my Reports of 1958 and 1959.

During the year the City Council introduced a five-day working week. After full consultation it was decided that this would not apply to the Dental Service. It was also considered necessary to keep open the Central School Clinic on Saturday mornings, to deal with work which could not conveniently be undertaken during the week. A skeleton staff consisting of Medical Officer, Physiotherapist, Nurse, Clerk and Nursing Assistant, are made available for this session on a rota basis. The scheme has been implemented without difficulty.

## GENERAL STATISTICS

Number of pupils attending :—

Maintained Nursery School and Class	..	..	89
Maintained Primary Schools ..	..	..	19,765
Non-Provided Primary Schools	..	..	5,939
Maintained Secondary Schools	..	..	7,963
Non-Provided Secondary Schools	..	..	1,151
Commercial, Technical, Grammar and High Schools			5,873
Non-Provided Technical School	..	..	332
Special Schools..	..	..	553
Total Child Population 5 to 16 years	..	..	41,713
Estimated cost of the School Health Service 1961-62.			£96,498

## MEDICAL INSPECTION

Medical Inspections have been arranged on the same lines as last year. The Kenton study has now completed its first full year and a full account appears in Part III of this Report.

### **Periodic Inspections**

In the main body of the Service, Periodic Inspections are provided for School Entrants, pupils in their last year in Primary School and on leaving school. Inspections are arranged on the block system by which all pupils in each school are examined in one consecutive series of visits to the school. The system has the advantage of simplicity and order, but is liable to restrict the visits of a Medical Officer to a few sessions at one period in the year. In practice this only occurs in small schools. In larger departments other matters necessitate additional calls. Another disadvantage, which is more 'real', is that school entrants are received all the year round and may have to wait longer than they should for the Annual Inspection. There is a further point which has recently been made : in larger Secondary Schools, and the majority are large departments, a single inspection makes serious inroads into the school activities in a single term. As school leaving is now to be restricted to twice a year, it seems reasonable to arrange for two inspections per year both for Entrants and Leavers. There is a further point worthy of consideration : the number of children inspected per session have been falling for some time, which means that the work is proceeding at a slower pace. It is not necessarily a sound argument to claim that inspections are more carefully done. There has, with the passage of time, been a tendency to put more and more into the inspection forgetting that it is essentially a screening operation, the original purpose of which was to select children for full consideration at the School Clinic, where facilities suitable for the purpose are available. A possible reason why these inspections were by regulation required to be done on school premises, may have been so that the teacher would be available for consultation in individual cases. Indeed, before the War, it was suggested that the Head Teacher should be present at the inspection. This rarely, if ever, occurred. Head Teachers, however, do avail themselves of the opportunity to bring forward children for examination for special reasons and to discuss individual children with the Medical Officer.

The numbers of children inspected were as follows :—

A. PERIODIC :

School Entrants .. .. . 4,020

Intermediates .. .. . 3,470

Leavers .. .. . 4,438

B. Re-Inspections .. .. . 1,383

C. Special Inspections .. .. . 4,085

The numbers of Pupils found in these Inspections to have defects requiring treatment were as follows :—

TABLE 1  
Pupils found to require Treatment

<i>Age Groups Inspected (By year of birth)</i> (1)	<i>For defective vision (exclud- ing squint)</i> (2)	<i>For any of the other conditions recorded in Table II</i> (3)	<i>Total individual pupils</i> (4)
1957 and later	—	14	14
1956	55	123	177
1955	119	247	360
1954	11	13	24
1953	2	2	3
1952	7	2	9
1951	305	386	587
1950	8	5	9
1949	3	1	3
1948	5	—	5
1947	318	187	442
1946 and earlier	222	123	289
TOTAL .. ..	1055	1103	1952

The types of defects are shown in the Table below :—

TABLE 2 — Defects found at Medical Inspection during the Year

Defect Code No.	Defect or Disease  (2)	PERIODIC INSPECTIONS									
		ENTRANTS		LEAVERS		OTHERS		TOTAL			
		(T) (3)	(O) (4)	(T) (5)	(O) (6)	(T) (7)	(O) (8)	(T) (9)	(O) (10)		
4	Skin .. ..	57	84	84	111	86	93	227	288		
5	Eyes— <i>a.</i> Vision ..	197	281	548	334	310	158	1055	773		
	<i>b.</i> Squint ..	98	58	71	55	87	66	256	179		
	<i>c.</i> Other ..	9	17	14	62	19	38	42	117		
6	Ears— <i>a.</i> Hearing ..	44	43	21	28	22	40	87	111		
	<i>b.</i> Otitis Media ..	18	79	17	54	11	48	46	181		
	<i>c.</i> Other ..	6	12	1	8	5	17	12	37		
7	Nose and Throat ..	87	332	22	48	28	183	137	563		
8	Speech .. ..	55	67	10	13	27	36	92	116		
9	Lymphatic Glands ..	13	58	2	11	2	30	17	99		
10	Heart .. ..	3	38	7	38	9	29	19	105		
11	Lungs .. ..	14	112	15	45	24	68	53	225		
12	Developmental — <i>a.</i> Hernia ..	7	19	3	4	3	8	13	31		
	<i>b.</i> Other ..	10	41	13	31	20	31				
13	Orthopaedic — <i>a.</i> Posture ..	5	13	18	10	17	55	43	127		
	<i>b.</i> Feet ..	57	72	18	50	50	67	125	189		
	<i>c.</i> Other ..	47	184	57	123	65	165	169	472		
14	Nervous System— <i>a.</i> Epilepsy ..	4	8	3	6	3	4	10	18		
	<i>b.</i> Other ..	4	9	1	10	3	25	8	44		
15	Psychological— <i>a.</i> Development ..	8	19	3	7	6	32	17	58		
	<i>b.</i> Stability ..	12	176	7	20	6	86	25	282		
16	Abdomen .. ..	3	5	—	1	1	7	4	13		
17	Other .. ..	3	2	1	5	3	—	7	7		

One might look at certain of these defects more closely. Some represent a class of widely differing conditions, for example, Heart conditions : others are more restricted, as for example, Squint. The trends of incidence of these categories of defects are shown in the Table below :—

TABLE 3  
The Incidence of certain Defects per 1,000 Pupils  
Inspected — 1952-61

<i>Year</i>	<i>Squint</i>	<i>Nose and Throat</i>	<i>Otitis Media</i>	<i>Lungs</i>	<i>Heart</i>	<i>Posture</i>
1952	14.5	58	5	13	8	4
1953	21	68	5	20.4	7	4
1954	40	89	18	46	13	10
1955	43	60	20	42	15	9.5
1956	33.5	60	14.5	31	13	7
1957	36.5	60	13	23	10	6
1958	40	59	12	30	9	7
1959	36	79	23	30	13	10
1960	34	94	22	21	14	12
1961	36	70	25	26	10	6.5
<i>National Average 1959</i>	41	70.4	11.5	24.6	12.7	16.5

These figures include children reported upon as requiring treatment and observation.

### General Observations

The general physical condition of pupils inspected continues to make slight improvement. The assessments of Medical Officers were as follows :—

TABLE 4

### Physical Condition of Pupils

<i>Age Groups Inspected (By year of birth)</i>	<i>Number of Pupils Inspected</i>	<i>Satisfactory</i>		<i>Unsatisfactory</i>	
		<i>No.</i>	<i>% of Col. (2)</i>	<i>No.</i>	<i>% of Col. (2)</i>
(1)	(2)	(3)	(4)	(5)	(6)
1957 and later	162	161	99.38	1	.62
1956	1501	1492	99.40	9	.60
1955	2202	2188	99.36	14	.64
1954	155	155	100.00	—	—
1953	28	28	100.00	—	—
1952	13	12	92.31	1	7.69
1951	3275	3255	99.39	20	.61
1950	41	40	97.56	1	2.44
1949	21	18	85.71	3	14.29
1948	92	92	100.00	—	—
1947	2655	2639	99.40	16	.60
1946 and earlier	1783	1778	99.72	5	.28
TOTAL .. ..	11928	11858	99.41	70	.59

In 1959, in consultation with Dr. Bransby of the Ministry of Health, a more permanent system of periodic measuring of samples of pupils was worked out. It was decided to utilise one-third of the pupils inspected in each of the three prescribed age groups and to publish the findings at five year intervals. It was estimated that sufficient equipment would be available for the purpose in 1961 and this has proved to be correct.

Children were weighed and measured taking the usual precautions, and measurements were recorded correct to the nearest  $\frac{1}{4}$  in. and  $\frac{1}{4}$  lb. The results are given in the Table below :—

TABLE 5  
Mean Heights and Weights of Pupils — 1961

<i>Year of Birth</i>	<i>Sex</i>	<i>No. Measured</i>	<i>Mean Height ins.</i>	<i>Standard Error</i>	<i>No. Weighed</i>	<i>Mean Weight</i>	<i>Standard Error</i>
1956	Boys	517	43.3	$\pm 0.11$	517	43.2lbs	$\pm 0.25$
	Girls	431	43.1	0.12	431	41.8lbs	0.26
1951	Boys	546	52.25	0.12	546	65.0lbs	0.46
	Girls	484	51.75	0.13	484	64.0lbs	0.56
1946	Boys	666	63.7	0.14	711	111.6lbs	0.56
	Girls	669	62.2	0.10	791	109.3lbs	0.50

C. OTHER MEDICAL INSPECTIONS PERFORMED BY MEDICAL OFFICERS WERE AS FOLLOWS :—

1. *Children*

Inspections for Freedom from Infection ..	479
Examination of children taken into care of Local Authority (Children's Department) ..	348
Examinations of Children and Young Persons prior to admission to Remand Homes ..	50
Examination for Employment out of school hours .. .. .	450
Examination of Boarded-Out cases .. .. .	387

2. *Adults*

Examination of candidates for admission to Training College .. .. .	168
Examination of second year students — Kenton Lodge Training College .. .. .	141

	Examination of candidates for appointment to Local Education Authority's staff :—	
(a)	Clerical and Professional .. .. .	355
(b)	Manual Workers .. .. .	73
	Examination of staff in connection with claims for extension of Sick Pay .. .. .	14

D. OTHER EXAMINATIONS PERFORMED BY SCHOOL NURSES

Hygiene Inspections .. .. .	59,948
Head Inspections .. .. .	35,650
Follow-up Inspections .. .. .	5,343

*Infestation with Vermin*

(a)	Total number of individual examinations of pupils in schools by school nurses or other authorised persons .. .. .	57,887
(b)	Total number of individual pupils found to be infested .. .. .	2,324
(c)	Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2) Education Act, 1944) .. .. .	53
(d)	Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3) Education Act, 1944) .. .. .	21

## SCHOOL CLINICS

The distribution of School Clinics has remained unchanged during the past year. The building of the Kenton Clinic is now in progress and its completion is anticipated during 1962. The maintenance of Clinic premises continues well up to previous standards. No major alterations have taken place in any of the Clinics during the year.

### Arrangements of the Work in Clinics

With the exception of the closure of peripheral Clinics on Saturday mornings, and an extension of the afternoon session to 5.30 p.m., work has continued in the Clinics on the same lines as last year. Medical arrangements are shown in Table 6.

### Attendances

The numbers of pupils seen by the Medical Officer or School Nurse in individual Clinics were as follows :—

#### A. SCHOOL CLINICS

Atkinson Road	..	..	..	2,096
Bentinck	..	..	..	1,472
Blakelaw	..	..	..	671
Central	..	..	..	518
Kenton	..	..	..	282
East End	..	..	..	1,390
Middle Street	..	..	..	1,737
TOTAL				8,166

#### B. CLINICS ON SCHOOL PREMISES

Number of Clinics	..	..	22
Total number of sessions per week			36
Total number of pupils seen	..		3,163

### General Work in the Clinics

#### A. CONSULTATIONS BY MEDICAL OFFICERS

Atkinson Road	..	..	..	642
Bentinck	..	..	..	587
Blakelaw	..	..	..	107
Central	..	..	..	350
Kenton	..	..	..	190
East End	..	..	..	1,059
Middle Street	..	..	..	546
TOTAL				3,481

TABLE 6—School Clinics (Medical)

Day and Time	CLINIC					
	Atkinson Road	Bentinck	Blakelaw	Central	East End	Middle Street
1.30 p.m. to 5.30 p.m.						
Monday ..	N D	N D	N D	N D	N	N D
Tuesday ..	N	N	N	N	N D	N D
Wednesday ..	N D	N D	N	N	N D	N
Thursday ..	N	N	N D	N D	N D	N D
Friday ..	N D	N D	N	N	N	N D
Saturday a.m. ..						
A session for Poliomyelitis Vaccination is held at the Central Clinic. Other urgent matters are dealt with as and when they arise.						

N = Nurse in attendance for Dressings and other duties.

D = Doctor in attendance.

# B. Work of Nurses in School Clinics

This is shown in the Table below :—

TABLE 7

## Return of Work Performed in Clinics by School Nurses

<i>Defect or Disease</i>	<i>Number of Children</i>	<i>Total Treatments</i>
Skin — Septic .. .. .	4,028	11,390
Scabies .. .. .	24	83
Ringworm .. .. .	35	272
Other .. .. .	2,065	6,699
Ear Conditions —		
Wax in Ears .. .. .	77	152
Discharging Ears .. .. .	67	1,026
Eye Conditions —		
Conjunctivitis .. .. .	77	246
Other external eye conditions .. .. .	443	828
Spectacles .. .. .	375	—
Vision Tests .. .. .	226	—
Tonsillitis .. .. .	70	32
Acute Infectious Fevers .. .. .	19	—
Injuries .. .. .	1,783	2,698
Malaise .. .. .	396	368
Follow-up Inspections .. .. .	866	718
Head Inspections .. .. .	2,179	175
Cleansing .. .. .	510	874
F.F.I's and Manual Workers .. .. .	857	184
Miscellaneous .. .. .	3,150	2,178
<b>TOTAL .. .. .</b>	<b>17,247</b>	<b>27,997</b>

### C. Work Performed in Clinics on School Premises

Similar work performed in Schools is shown in the Table below :—

TABLE 8  
Return of Work Performed in Clinics on School Premises by  
School Nurses

<i>Defect or Disease</i>	<i>Number of Children</i>	<i>Total Treatments</i>
Skin — Septic .. .. .	4,877	8,687
Scabies .. .. .	13	16
Ringworm .. .. .	6	5
Other .. .. .	5,328	8,658
Ear Conditions —		
Wax in Ears .. .. .	90	89
Discharging Ears .. .. .	98	158
Eye Conditions —		
Conjunctivitis .. .. .	55	54
Other external eye conditions .. .. .	565	717
Spectacles .. .. .	45	—
Vision Tests .. .. .	177	—
Tonsillitis .. .. .	16	2
Acute Infectious Fevers .. .. .	11	4
Injuries .. .. .	2,318	3,149
Malaise .. .. .	97	71
Follow-up Inspections .. .. .	1,885	45
Head Inspections .. .. .	2,301	210
Cleansing .. .. .	368	260
F.F.I's and manual workers .. .. .	20	14
Miscellaneous .. .. .	1,477	807
TOTAL .. .. .	19,747	23,019

### D. Duties performed by School Nurses outside Clinics

Home Visits .. .. .	1,565
Children escorted to Clinics or Hospitals .. .. .	269
Children escorted to and from Residential Special Schools .. .. .	43

## SPECIAL CLINICS

### 1. Orthopaedic

At present there are three physiotherapists working full-time and three working part-time. Since the establishment is six full-time physiotherapists, and there is country wide shortage, the only solution is to try to obtain more part-time help.

The Department and its Clinics are fully equipped, but it would be a great advantage to have a pool for hydrotherapy and it is hoped that this will materialise in time.

As far as clinical matters are concerned, the number of patients referred and attending continues at the same level as previously and covering the same wide field of diagnosis.

A slight increase in the incidence of bunions, normally uncommon in men, has been observed coincident with the prevailing fashion of tight-fitting shoes.

### Statistics for the Year 1961

#### REPORT OF THE ORTHOPAEDIC DEPARTMENT FOR THE YEAR 1961

		<i>School Medical Service</i>	<i>Maternity and Child Welfare Service</i>
1. <i>Attendances</i>			
New Patients — Boys 432 } .. 821		179 }	322
— Girls 389 } .. 143 }			
Total Attendances at Surgeons' Clinics .. .. .	2,221		761
Waiting List .. .. .	—		—
2. <i>Discharges</i> .. .. .	804		161
Admissions to Sanderson Orthopaedic Hospital .. .. .	95		13
3. <i>Physiotherapy</i>			
Total number of attendances at Physiotherapy Clinics .. .. .	13,304		3,111
Special Therapies given to Orthopaedic Patients :—			
Swedish Remedial Exercises .. .. .	7,387		747
Massage .. .. .	80		133
Manipulations .. .. .	1,614		1,138
Medical Electricity .. .. .	2,712		248
Radiant Heat .. .. .	164		—
Ultra Violet Light .. .. .	109		—
Plasters .. .. .	—		—
Home Visits (Manipulations for congenital Foot Deformities) .. .. .	—		11
<i>Non-Orthopaedic</i>			
Chest Conditions } Patients .. .. .	87		—
(Asthma, Bronchitis and Bronchiectasis } .. .. .			
Ultra Violet Light } Treatments .. .. .	—		—
Patients .. .. .	11		—
Treatments .. .. .	261		—

#### 4. *Other Information*

Number of Children requiring			
X-ray	.. .. .	77	16
Photographs	.. .. .	5	—
Number of Surgical appliances (supplied and maintained)			
	.. .. .	2,995	1,196

## 2. **Ophthalmic**

Ophthalmic work has continued on the same lines as in previous years, but the subject is under review and possibly certain developments will be witnessed during 1962.

### A. *Refractions*

Only two School Medical Officers continue to undertake refractions. The remainder of the work is undertaken by three Ophthalmic Medical Practitioners, one of whom is seconded by the Regional Hospital Board. Except in exceptional cases, pupils are examined under a mydriatic. During the year, Cyclogyl, a quick acting preparation, characterised by early recovery of accommodation, was tried out and found to be useful. Refractions are done at the Central School Clinic and also at Bentinck and Middle Street Clinics.

The work carried out during the year was as follows :—

#### **Refractions 1961**

*Number of children Refracted* .. .. . 1,806

Number of children awaiting attention at the end of the year :—

(i) New Cases .. .. . 44

(ii) Old Cases .. .. . 615

Number of children who received an eye test other than through the School Health Service :—

(i) Hospital Service .. .. . 18

(ii) Supplementary Ophthalmic Service .. .. . 122

### B. *Prescription of Spectacles*

The numbers of children for whom spectacles were prescribed were as follows :—

(i) Through the School Health Service 1,157

(ii) Through Other Ophthalmic Services .. .. . 118

### C. *Dispensing of Spectacles*

(i) Number of Children who obtained Spectacles .. .. . 1,140

(ii) Number of Spectacles Repaired or Replaced .. .. . 961

A sum of £233 10s. 11d. was charged to this Authority in respect of glasses which, in the view of the Supplementary Ophthalmic Services Committee required repair or replacement arising out of negligence.

#### D. Other Ophthalmic Conditions

Minor ophthalmic conditions such as blepharitis or conjunctivitis are treated as required at School Clinics and their numbers are shown in Tables 7 and 8. Foreign bodies in the eye are generally referred to hospital.

All cases of squint are referred to the Ophthalmic Unit at the Newcastle General Hospital. Contact between this Unit and the School Health Service is very satisfactory. Contact with a similar department in the Royal Victoria Infirmary is not entirely so. It would appear that there is a place for orthoptic treatment in a comprehensive School Ophthalmic Service, but orthoptists are in short supply and, for the time being, they more profitably work in the Hospitals of the Region.

Children whose vision is so poor that they require special educational treatment are referred to us from the consultants treating them, and also from the Welfare Department, a copy of Form B.D. 8 being supplied which contains adequate information.

Dr. J. D. Milne undertakes responsibility for partially sighted pupils in our schools, and for blind pupils at the Royal Victoria School for the Blind.

#### 3. Hearing Assessment

(Dr. B. BUCKLEY)

The year under review was one of consolidation rather than spectacular innovation. The structural alterations at the Central Clinic having been completed, hearing assessments were able to proceed without interruption. Increasing volume of work has called for more sessions.

The following statistical summary of the year's work tells its own story :—

	1960	1961
A. No. Audiometer Tests .. .. .	154	322
(a) New Cases .. .. .	105	224
(b) Reviews .. .. .	49	98
B. New Cases Attending Clinic .. .. .	95	205
(a) Cases Reviewed :		
In Special Schools .. .. .	17	11
In Ordinary Schools .. .. .	56	122
(b) Cases Discharged .. .. .	77	93
C. No. of Cases referred to :		
(a) Hospital or General Practitioner .. .. .	48	25
(b) Speech Therapist .. .. .	6	4
D. <i>Handicapped Pupils</i>		
(a) Ascertained .. .. .	11	4
(b) Reviewed .. .. .	7	4
E. No. of Pupils on Register as issued with Hearing Aids .. .. .	40	38
No. followed-up and reported upon .. .. .	40	*26

\* A further 12 Aids were followed up in the Class for Hard of Hearing.

F. No. of Hearing Aids issued — not on			
Register .. .. .	—		14
No. followed-up after leaving school ..	—		3
No. of Hearing Aids returned .. .. .	—		2

### Special Classes for the Hard of Hearing

The services of a fully trained teacher of the Deaf were obtained in the appointment of Mrs. Amos to the Senior Class.

Grateful acknowledgement is made of the gift of £65 from the North Eastern Region of the Deaf Children's Society, which was used for the purchase of a tape recorder.

### Audiometry (By NURSE T. CHESTERTON, S.R.N.)

During the year, 322 Audiometer tests were carried out, an increase of 168 from 1960.

Fourteen children have been issued with Hearing Aids in the past year, two of whom are of pre-school age. Two Hearing Aids have been withdrawn from children who have now left school and no longer require them. These children will be followed-up every six months.

All Hearing Aids have been checked and reports sent to Mr. J. I. Munro Black. Head Teachers have been most helpful in the supervision of children wearing their Aids regularly.

Nurses Thomson, Wakefield and Walker have been given instruction in Audiometry, and have since assisted in Hearing Assessment Clinics where required.

### 4. Asthma

The objects with which this Clinic started nearly three years ago remain unaltered, namely, to give special care and understanding to children whose education is being disturbed by Asthma. Some 70 children have attended the Clinic since it began. What is particularly required as we enter upon a third year is to preserve the same care and diligence with each case, for this outweighs in value both experience and knowledge of the condition.

It is interesting to note that the educational pattern of pupils attending is changing. Fewer attend Pendower Hall School and more ordinary schools.

Cases handled during the year are as follows :—

Number of New Cases .. .. .	12
Number discharged from further attendance ..	10
Number under surveillance at end of the Year ..	47

The schools attended are as follows :—

#### Day Schools :

Pendower Hall Open Air .. .. .	14
Primary Schools .. .. .	12
County Secondary Schools .. .. .	7
Grammar Schools .. .. .	3
Non-Provided Schools .. .. .	1

*Residential :*

Special Open Air .. .. .	2
Special Maladjusted .. .. .	1
Fee Paying Boarding .. .. .	2
Fee Paying Public .. .. .	1

It will be seen that the children tend to be of higher social and educational status. In this connection the following contribution of Nurse Urquhart at Pendower Hall is worthy of inclusion.

## THE HOME BACKGROUND OF ASTHMATICS AT PENDOWER HALL \*

BY NURSE M. T. URQUHART, S.R.N., S.C.M.

The home background is an important influence upon a child's mental and, to a less extent, physical health. It constitutes the material and emotional environment in which the child's body and personality develops. The emotional background emerging from the personalities of the parents and other members of the household is less definable, but it is mainly about the former I want to talk. I have picked just five subjects for consideration.

### 1. The Social Status of the Family

The father's occupation helps us to place the family in the world of affairs, and in terms of material comfort. Asthmatical children attending this School have been classified and compared with a random sample of the City in the Table below.

TABLE 9

### Social Status of Asthmatical Families contrasted with 1,000 random Families

<i>Class**</i>				<i>Asthmatical Families</i>	<i>Random† Families</i>
1.	Professional	..	..	—%	1.7%
2.	Business	..	..	4.0%	4.3%
3.	Skilled Workers	..	..	52.0%	69.0%
4.	Semi Skilled	..	..	24.0%	7.0%
5.	Unskilled	..	..	20.0%	18.0%
6.	Unemployed	..	..	6.0%	6.5%

\* Given at a Symposium on Asthma to the Special Schools Association.

\*\*Classification of Occupations. General Registrar's Office, 1951.

†Report of the Principal School Medical Officer, Newcastle upon Tyne, 1955.

## 2. Health of the Families

In the Principal School Medical Officer's Report of 1955 it was noted that Asthma was commonly found in both parent and child. In 774 records, 7 parents and 5 of their children had Asthma. The family histories of our children were as follows :—

TABLE 10

### Asthma and Allied Conditions occurring in the Families of 33 Asthmatical Cases

		<i>Number of Instances</i>	
			<i>In Other Members of</i>
	<i>Condition</i>	<i>In Parents</i>	<i>Family</i>
1.	Asthma .. ..	4	14
2.	Allergic — Eczema ..	2	6
	Urticaria ..	1	2
	Hay Fever ..	1	—
3.	Emotional Disturbance ..	14	2
4.	Respiratory Infection ..	6	—

Number of Families free — 9

Usually it is the elderly members of the family, i.e. grandparents, aunts, who suffer from Asthma and the child suffers in sympathy. Respiratory infection passed round the family when the child is very young, is also an important factor.

## 3. Position in the Family

This is shown in the Table below :—

TABLE 11

### Position of Asthmatic Children in the Family

<i>Number in Family</i>	<i>Children Observed</i>	<i>No. of oldest Children</i>	<i>No. of youngest Children</i>	<i>No. in Other Places</i>
1 Child .. ..	3	3	—	—
2 Children .. ..	6	1	5	—
3 „ .. ..	6	4	2	—
4 „ .. ..	4	—	—	4
5 „ .. ..	5	1	2	2
6 „ .. ..	7	—	3	4
7 „ .. ..	—	—	—	—
8 „ .. ..	1	—	—	1
TOTAL .. ..	32	9	12	11
Expected Total in Random Sample ..	32	11	8	13

It will be seen that there are rather more 'youngest' children in this sample than one might expect in one from an ordinary school. We have reason to believe that they are over-protected, as younger children often are.

#### 4. Care as evidenced by turn-out for School

Impressions gained by nurse or teacher from the daily turn-out of the child for school are generally sound. I have contrasted our Asthmatics with a similar sample of pupils at this School, suffering from other chest conditions, and you will, I think, agree that they receive greater home care.

TABLE 12  
Standards of Care Assessed by Turn-out for School

<i>Standard of Care</i>	<i>No. of Pupils</i>	
	<i>With Asthma</i>	<i>With Other Chest Conditions</i>
Above Average ..	12	6
Average .. ..	14	15
Below Average ..	7	12

#### 5. Housing

The types of dwelling occupied by our pupils are contrasted with those reported by the Principal School Medical Officer in 1955.

<i>Type of Dwelling</i>	<i>Asthmatic Pupils</i>	<i>Random Sample</i>
Rooms .. ..	7.0%	9.0%
S/c Flat .. ..	50.0%	53.0%
Whole House ..	40.0%	35.0%
Pre-Fab. .. ..	3.0%	3.0%

Thus, rather more families were house dwellers, and 10% are known to be owner occupiers.

*To sum up :* Whilst our Asthmatical children come from much the same social economical groups as the general run of families, they are more commonly the youngest members of smaller families in which there is a tendency to emotional disturbance. Often another member suffers from Asthma. In housing they are better off, possibly owing to a high sense of responsibility on the part of the parents.

School Transfers were as follows :—

From Pendower Hall to Ordinary School ..	..	7
From Ordinary School to Pendower Hall ..	..	3
From Ordinary School to Residential School —		
Special	..	1
Ordinary	..	2

The Condition of Pupils on Discharge was as follows :—

No symptoms	..	..	6
Improved	..	..	2
I.S.Q.	..	..	2 (School Leavers)
Deteriorating	..	..	2 (Transferred to Stannington Children's Hospital School)

Mr. C. Cree continues to undertake Spirography at Pendower Hall and also takes charge of the Remedial Exercise work. His progress reports are of great value in determining the course of action when dealing with these children.

## 5. Skin Clinics

(BY DR. H. M. DIXON)

The Skin Clinic continues to operate at both the Central and East End School Clinics. This has proved useful because more patients come from the Walker area than any other area.

A sharp attack of human type scalp Ringworm (M. Audouini) appeared late in the year in the Walker area involving 11 children in two schools. All cases were treated at the Royal Victoria Infirmary where the staff are most helpful and see cases without delay.

Plantar Warts remain a problem. Formaldehyde soaks are still used for treatment. This is too slow and immediate radical treatment of the wart on discovery would go far to remove a reservoir of infection. Further, prolonged attendance at the Clinic under this regime tends to undermine confidence in the department alike by patient and family doctor.

An interesting problem has been presented by Papular Urticaria caused by insect bites. These cases, which are increasing steadily in number, are generally referred as 'scabies' and indeed have usually been treated as such for a considerable time. The causative parasites are more generally found in condemned dwelling houses or rubbish dumps where the children play, or in places where animals or birds are numerous.

Personally, I have not seen a single case of real proved scabies this year.

The Artificial Sun Light Clinic runs well in co-operation with the Orthopaedic Department, and cases are referred there from the Royal Victoria Infirmary for treatment, mainly for psoriasis.

There has been some discussion about true Eczema of the foot wrongly diagnosed as Epidermophytosis, and of the difficulty in recovery of dermatophytes from floors. I would, with some diffidence, suggest that except in Infantile Eczema, 'Foot Eczema' is a rarity in childhood.

The principal aims of the Clinic have been to investigate the epidemiology of Enuresis and to treat children suffering from this condition. Since its opening in June, 1961, 13 boys and 15 girls have been attended to, all of whom have been troubled since birth, and the majority being wet every night. Nine cases were incontinent by day also. Parents and children have been appreciative, if not always regular, attenders.

Attendances were as follows :—

Total Number Attending	..	..	28
Defaulted after first visit	..	..	2
Defaulted on Treatment	..	..	4
Referred to Specialists	..	..	2
Discharged	..	..	9
Still attending	..	..	11

### Epidemiological Study

The importance of the human environment was the main finding, particularly mother and child relationship. The educational attainments of enuretics were found to be below normal.

### Treatment :

Two forms of treatment predominated, namely :—

- (i) Psychological supportive therapy, including a 'star chart.'
- (ii) The bell and pad electrical circuit apparatus.

The selection of cases for the bell and pad apparatus may have been unfortunate for it resulted in only one cure, one marked improvement, one moderate improvement and three failures.

Treatment of children incontinent by day was, however, more successful. The seven cases were all cured, and nightly considerably reduced. The overall results of treatment were as follows :—

Total Number Treated	..	..	24
Cured	..	..	9
Marked Improvement	..	..	6
Moderate Improvement	..	..	4
No Improvement	..	..	4
Treatment just started	..	..	1

Two cases were referred to Hospital and one became dry following removal of Tonsils and Adenoids.

### **KENTON PILOT SCHEME**

BY DR. A. GATHERER AND DR. A. R. BUCHAN

#### **Introduction**

The great majority of school children in recent years are more robust and healthy than their predecessors. Infectious diseases including Tuberculosis are better controlled and the undernourished child is no longer common.

The needs of the modern pupil are therefore vastly different to those of children of former years. Despite great advances in medical knowledge there still remain a number of hazards to the well-being of the school child. It would seem, therefore, that these changes should be reflected in the organisation of the fifty-year old School Health Service.

The Kenton Pilot Scheme is an attempt to modify the Service in one area of the City to meet the challenge of present-day requirements.

#### **Aims**

In the past the foundation of the School Health Service has been the routine school medical inspection. At Kenton the Scheme provides for a basic, comprehensive examination at entry. Thereafter the emphasis is changed to devote attention to those children most requiring medical care. This has been achieved mainly in two ways :— (a) At the age of nine years, formal selection is made of those children thought to require a medical examination by perusal of the medical records, attendance registers and so on. Head Teachers, at the same time, submit a list of children whom they consider would benefit from an examination. In addition, the parents of non-selected pupils are given the opportunity of requesting examination for their child. In this way, it is hoped that more medical time will be devoted to children thought to be requiring assessment and follow up ; (b) At any age, a child may be referred to the doctor by teachers, parents, welfare officers, and others. Individual appointments are then made for the parent to attend with the child for consultation.

Another feature of the Scheme has been to change from the block system in which the doctor visited a school until all the routine inspections were completed and possibly not again that year, to a system of regular visits. In this way all the schools are visited by the doctor at least once per fortnight or once in three weeks in the two smaller schools, and of course more frequently by the nurses.

Perhaps the major change has resulted from a full recognition of the changed pattern of disease and defect in present-day schoolchildren. As a result, an attempt has been made to change from a predominantly defect-detecting machine to a more flexible service, in which the doctor as school physician is regarded as a member of staff and as such an integral part in the education process.

### Method and Work Done

#### 1. *Routine School Medical Inspections*

##### (a) *Infants and children entering the area*

New entrants were examined during the term of entry, usually in the presence of the parents, who were encouraged to attend and also asked to complete a detailed questionnaire. Ten children were seen per session to allow more time for discussion.

TABLE I  
Number of Infants and Entrants Examined, 1961

<i>School</i>	<i>Term in 1961</i>			<i>Total</i>
	<i>Spring</i>	<i>Summer</i>	<i>Michaelmas</i>	
Hillview .. ..	30	46	44	120
Mountfield .. ..	23	18	41	82
St. Cuthbert's ..	41	17	43	101
Edgefield .. ..	18	13	23	54
North Fawdon ..	10	22	21	53
TOTAL .. ..	122	116	172	410

##### (b) *Juniors*

All children born in 1951 were 'selected' for medical examination by the following method :—

(i) A close scrutiny of the available medical records, including School Medical Record Cards and enclosed reports, Child Welfare and Health Visitor records, was made by the school doctor. All children with a significant defect or history of illness which might affect the child's education were considered for examination.

(ii) Each Head Teacher was asked to draw up a list of pupils from this age group and where possible give reasons about those whom they felt would benefit from a medical examination.

(iii) The Education Welfare Officers, School Nurses and Health Visitors were also asked to nominate children who warranted examination.

(iv) The parents of the remainder were then given the opportunity of requesting an examination.

The children were seen by appointment at the rate of 12 per session.

Parents were asked to complete a brief questionnaire and invited to attend.

TABLE II  
Number of 9-year-old children selected

<i>School</i>	<i>Total born in 1951</i>	<i>Total Selected for Examination</i>	<i>No. selected by School Health Team and Head Teachers</i>	<i>No. selected by parents</i>
Hillview .. ..	130	84	71	13
Mountfield .. ..	96	76	56	20
St. Cuthbert's ..	113	76	61	15
Edgefield .. ..	54	30	23	7
North Fawdon ..	59	39	31	8
TOTAL .. ..	452	305	242	63

TABLE III  
Number of 9-year-old schoolchildren examined

<i>School</i>	<i>Total born in 1951</i>	<i>Term</i>			<i>Total Examined</i>
		<i>Spring</i>	<i>Summer</i>	<i>Michaelmas</i>	
Hillview .. ..	130	22	40	—	62
Mountfield .. ..	96	24	35	—	59
St. Cuthbert's ..	113	24	26	—	50
Edgefield .. ..	54	12	7	—	19
North Fawdon ..	59	11	19	—	30
TOTAL .. ..	452	93	127	—	220

The selected children who missed examination because of absence, together with children proposed by parents, are being examined in this current Spring Term (1962). The delay was largely due to the time committed to the B.T.A. trial.

Of the 63 children selected by parents, 32 have so far been examined, and it appears that there were no significant reasons as to why the parents referred them. In six instances the parents did not even accompany the child. Three children from the 32 were found with defects requiring further attention.

All the children whether selected or not had their eyes tested by the School Nurses.

(c) *Seniors*

For the present, all leavers were examined as in former years (Table IV). It is gratifying to note that a quarter of the leavers were accompanied by a parent, thus adding to the value of the examination.

TABLE IV

**Number of School Leavers Examined**

<i>School</i>	<i>Michaelmas Term</i>	<i>Attendance of Parents</i>
St. Thomas More R.C. . . . .	122	26%
Kenton Secondary . . . . .	200	23%
<b>TOTAL . . . . .</b>	<b>322</b>	

2. *Defects Found at Medical Inspections*

As the main change in emphasis affected the Infant and Junior Medical inspections, close attention has been paid to the number and type of defect discovered in these age groups. Altogether, 286 out of 410 children examined in the Infant group and 157 out of 220 children examined in the Junior Group were found to have one or more defects, as shown in Table V.

TABLE V—Incidence of Defects in Primary Schools

School	Total	Code No. 1 Cleanliness	2 Infestation	3 Teeth	4 Skin	5 Eyes	6 Ears	7 Nose & Throat	8 Speech
<i>Infant Dept.</i>									
Hillview .. ..	151	1	3	—	14	10	7	26	5
Mountfield .. ..	97	—	—	—	3	15	3	8	10
St. Cuthbert's R.C.	140	3	3	3	12	19	10	18	5
Edgefield .. ..	59	—	1	2	2	15	3	11	—
North Fawdon ..	70	1	—	—	6	9	4	14	3
TOTAL..	517	5	7	5	37	68	27	77	23
<i>Junior Dept.</i>									
Hillview .. ..	69	—	—	2	2	20	4	8	3
Mountfield .. ..	63	1	2	1	5	12	6	5	—
St. Cuthbert's R.C.	46	—	1	1	1	14	4	3	2
Edgefield .. ..	21	—	—	—	2	9	—	2	—
North Fawdon ..	36	—	1	1	6	10	3	1	2
TOTAL..	235	1	4	5	16	65	17	19	7
COMBINED TOTAL..	752	6	11	10	53	133	44	96	30

TABLE V — continued

<i>School</i>	9 <i>Glands</i>	10 <i>Heart</i>	11 <i>Lungs</i>	12 <i>Development</i>	13 <i>Orthopaedic</i>	14 <i>Nervous System</i>	15 <i>Psychological</i>	16 <i>Other</i>
<i>Infant Dept.</i>								
Hillsview ..	10	—	11	6	19	—	37	2
Mountfield ..	1	—	9	4	10	1	32	1
St. Cuthbert's R.C.	5	—	5	5	18	1	32	1
Edgefield ..	2	—	3	—	9	—	11	—
North Fawdon ..	3	—	2	2	4	—	22	—
TOTAL..	21	—	30	17	60	2	134	4
<i>Junior Dept.</i>								
Hillsview ..	—	—	2	1	17	1	8	1
Mountfield ..	—	1	2	8	8	4	4	4
St. Cuthbert's R.C.	—	—	2	5	6	3	3	1
Edgefield ..	—	—	—	1	4	—	2	1
North Fawdon ..	—	—	—	2	1	—	6	3
TOTAL..	—	1	6	17	36	8	23	10
COMBINED TOTAL..	21	1	36	34	96	10	157	14

Although this means that 70% of the children examined were recorded as having defects, many of these were of little or no significance. There is however, an interesting change of pattern in the type of defect in the Kenton entrants when compared with the rest of the City.

TABLE VI  
Type of Defect in order of frequency (Infants)

Kenton Area	Other Areas in City
1. Psychological	1. Recurrent upper respiratory infection.
2. Recurrent upper respiratory infection	2. Eyes
3. Eyes	3. Orthopaedic
4. Orthopaedic	4. Psychological
5. Skin	5. Ears

This was in some measure the desired result of the use of the detailed questionnaire which drew the doctor's attention to minor but important emotional difficulties not easily found by physical examination alone.

It is interesting that over 90% of the questionnaires were satisfactorily completed by the parents.

#### 3. *Re-Inspections (Defects)*

Follow-up inspections were made in those children where the defect warranted further supervision. Table IV gives the numbers of children with defects but the majority had already received the necessary medical attention.

TABLE VII  
Number of Re-Inspections

School	No. of Children		
	Juniors	Infants	Total
Hillview .. ..	46	53	99
Mountfield .. ..	43	30	73
St. Cuthbert's .. ..	32	42	74
Edgefield .. ..	12	23	35
North Fawdon .. ..	24	27	51
TOTAL .. ..	157	175	332

#### 4. *Consultations*

Regular consultation sessions were held throughout the year and Table VII gives details of numbers seen and by whom referred.

TABLE VIII  
Number of Children referred for Consultation

Referred by	No. of children seen			Year
	Spring	Summer	Michaelmas	
Head Teacher .. .. .	19	14	17	50
School Health Team .. ..	24	19	22	65
Parent .. .. .	3	8	10	21
Educational Welfare Officer ..	2	2	2	6
Senior School Medical Officer and Others .. .. .	—	3	4	7
<b>TOTAL .. .. .</b>	<b>48</b>	<b>46</b>	<b>55</b>	<b>149</b>

5. *Minor Dressings, etc.*

The minor dressings were carried out as in previous terms in the primary schools. The nurse visited each school as follows :

Mountfield — Tuesday and Thursday afternoons.

North Fawdon — Tuesday and Thursday mornings.

St. Cuthbert's — Wednesday afternoon.

Edgefield — Wednesday morning.

At Hillsvie the Head Teachers felt that such sessions were unnecessary providing they were assured of adequate medical cover in case of emergency. The weekly time-table of the doctor, which was sent to all schools, helped in this respect.

In the Secondary Schools a morning Sick Parade was held at which the school doctor could also be consulted. Some 259 children were referred to the doctor at these sessions. Table VIII gives the details of the referrals.

TABLE IX  
Number of children referred to School Doctor

Referred by	No. of children seen			Year
	Spring	Summer	Michaelmas	
Self referred .. .. .	29	62	43	134
Teacher .. .. .	14	35	18	67
School Nurse .. .. .	12	10	16	38
Parents .. .. .	2	3	14	19
Education Welfare Officer ..	—	—	1	1
<b>TOTAL .. .. .</b>	<b>57</b>	<b>110</b>	<b>92</b>	<b>259</b>

## 6. Tuberculin (Heaf) Testing and the B.T.A. Trial

Tuberculin (Heaf) testing continued as in other areas of the City but in addition the area took part in the national trial organised by the British Tuberculosis Association. Over two thousand children, aged 5-9 years, were tested with Avian and Human tuberculin in both the Summer and Michaelmas terms and the trial is to continue into 1962. Table IX compares Newcastle to the other areas taking part. It will be seen that Newcastle has the most successful figures in comparison with other areas, which reflects the hard work put into the operation by the School Health Team, and also the good co-operation received from schools.

TABLE X

### B.T.A. Trial — Figures by area

	<i>No. of children in Survey</i>	<i>Percentage Accepted</i>	<i>Percentage Tested and Read</i>
Rhondda Valley .. .. .	1293	79.3	76.1
Monmouthshire .. .. .	1813	96.9	82.3
Cardiff .. .. .	1421	92.9	87.3
East Suffolk .. .. .	1133	83.7	79.6
Hampshire .. .. .	1292	91.8	85.1
Newcastle upon Tyne .. .. .	2213	98.1	93.2
<b>TOTAL .. .. .</b>	<b>9165</b>	<b>91.7</b>	<b>84.9</b>

Poliomyelitis, Diphtheria and B.C.G. vaccines were given at the appropriate intervals to those children requiring protecting and reinforcing doses. As follows :—

### Number of Immunological Procedures

	<i>Number</i>
1. Diphtheria Immunisation .. .. .	327
2. Poliomyelitis Vaccination .. .. .	1,884
3. B.C.G. .. .. .	369
4. Heaf tests .. .. .	8,605
	<hr/>
	11,185

## 8. Other Examinations

Other examinations carried out as part of the usual School Health Service programme.

### Other Examinations

<i>Examination</i>	<i>Pupils Examined</i>
Employment Medicals .. .. .	25
Boarding out Examinations .. .. .	11
Free from Infection Examinations .. .. .	131
Outward Bound Examinations .. .. .	4
Ascertainments (2 HP completion) .. .. .	4
Hygiene Inspections (by School Nurses) .. .. .	11,409
<b>TOTAL .. .. .</b>	<b>11,584</b>

## 9. Research

Apart from the B.T.A. trial already mentioned, work has been done on the following subjects ; " minor ailments " in schools ; the incidence of smoking in school leavers ; minor emotional upsets in school entrants.

## 10. Liaison

One of the main purposes of the Scheme was to forge a close link between the School Health team and Schools' staff. This was achieved by meetings between Head Teachers and the School Doctor at regular intervals at which any school health problem could be raised and discussed. It was intended that these visits should be monthly, but the regularity was interrupted by the extra work involved in the B.T.A. trial. In addition, the nurses were encouraged to meet the school teaching staff and to note and refer anything which required the attention of the team. Many difficult cases were discussed in this way and these links have proved invaluable.

In addition, a serious attempt was made to co-ordinate all those field workers in the area concerned in the care and welfare of children. Regular meetings under the chairmanship of the Doctor have taken place with Health Visitors and every chance taken to discuss problems with other colleagues such as Educational Welfare Officers, Hospital Consultants and Family Doctors.

## 11. Comments of Head Teachers

During the latter part of the Michaelmas Term Dr. Gatherer and Dr. Buchan thanked Head Teachers individually for their co-operation and invited comments on the working of the scheme.

Much helpful criticism was given ; for instance, one Head Teacher felt that the block system for routine school medical examinations was better, but she was quite willing to continue the new arrangement for the time being. Another Head Teacher felt that the visits of the doctor and nurses to the school were perhaps too frequent, but agreed that this was mainly due to the extra commitments in the area such as the B.T.A. trial. Most Head Teachers in fact felt that the regular visits of the team to their schools was one of the chief assets in the scheme, and helped, as one said, to make the school staff more conscious of the value of a School Health Service. All Head Teachers preferred the scheme to the previous system and one went so far as to state that the scheme was excellent in every respect. Much benefit has been derived from the views freely expressed and the suggestions have been noted for future consideration.

## 12. Conclusion

There seems little doubt that the Scheme as envisaged is a practical proposition providing a modern approach to the needs of the Kenton pupils whilst at the same time being of greater interest and challenge to the medical and nursing staff.

It is suggested that a similar service should be extended to other areas in the City as opportunity arises.

[This Report was presented to the School Health Services and Child Care Sub-Committee on 17th April, 1962, and covers the period January to December, 1961. The scheme has operated since September, 1960 and a preliminary Report appeared in the Annual Report, 1960, pages 13-15 and Appendix 11.]

## **REPORT ON THE SCHOOL DENTAL SERVICE**

**DR. J. C. BROWN :** Principal Dental Officer

### **General**

From some 36,000 children examined in 1961 exactly half were found to be in need of dental treatment. These figures are very distressing when one bears in mind that dental treatment is today entirely free for school children whether they elect to attend the school service or any private practitioner of their choice. Where does the blame for this state of affairs lie? It is undoubtedly in the apathetic attitude of the parents, combined with the natural reluctance of the children to be hurt. But today a visit to the dentist need not necessarily be associated with pain and in a modern dental service everything is done to make the occasion of a child's visit for treatment as painless as possible.

Extractions are usually undertaken by general anaesthesia and fillings are done under 'injection' if it is at all likely that the filling will be a painful one. Thus everything possible is done to overcome the fear and reluctance of the young patients. There remains then the attitude of the parents. A minority see to it that their children attend the dentist regularly, but far too many are content to do nothing until such time as pain or obvious dental defect make them bring the children for treatment, and by then extraction is usually all that can be done.

It cannot be stressed sufficiently, that with modern nutritional standards as they are, regular and frequent visits to the dentist must be made if the child is to leave school with a sound and healthy mouth.

### **Staff**

Two full-time and four part-time officers were appointed during the year while one full-time officer, Mrs. Jordan, and three part-time officers resigned. For most of the year the staff was reasonably well up to establishment, but frequent comings and goings are anticipated for some time to come.

### **Dental Inspections**

Most of the schools were inspected during the year, but in the Pendower and Cowgate areas a few schools had to be omitted owing to staff shortages and illness. In addition to routine school examinations all children who regularly attend the clinics were examined at six-monthly intervals.

## Treatment

Most of the time given over to clinical work was devoted to conservation of the teeth and in this connection the use of the new airtors in the Central Clinic was popular with both dentists and children, as they cut down on drilling time and tend to be less unpleasant in use than the conventional units.

The majority of extractions were carried out under light general anaesthesia and where recovery was delayed or difficult, arrangements with the Ambulance Service to take the patients home was very satisfactory.

The orthodontist service was well attended throughout the year, and a record number of 400 patients were treated. Since this somewhat complex branch of dentistry was offered some five years ago its benefits have been sought more and more each year, and the dental officer undertaking this type of treatment now has his hands very full indeed.

## Specialist Services

Arrangements for specialist advice and treatment with the Sutherland Dental Hospital, the General Hospital and the Royal Victoria Infirmary, worked very satisfactorily during the year, while the Emergency Gas Service in the Central Clinic each afternoon was well attended, anything up to twelve children suffering from toothache being relieved each day.

Statistics for the year are given below :—

### Dental Inspection and Treatment, 1961

1.	Number of pupils inspected by the Authority's Dental Officers :—			
	(a) At periodic inspections	..	..	36,481
	(b) As specials	..	..	3,418
	TOTAL (1)	..	..	39,899
2.	Number found to require treatment	..	..	18,318
3.	Number offered treatment	..	..	9,338
4.	Number actually treated	..	..	6,082
5.	Number of attendances made by pupils for treatment, including those recorded at 11(h) below	..	..	18,625
6.	Half days devoted to : (a) Periodic school inspections	..	..	282
	(b) Treatment	..	..	3,115
	TOTAL (6)	..	..	3,395
7.	Fillings : (a) Permanent Teeth	..	..	6,908
	(b) Temporary Teeth	..	..	1,429
	TOTAL (7)	..	..	8,337
8.	Number of teeth filled : (a) Permanent Teeth	..	..	5,897
	(b) Temporary Teeth	..	..	1,298
	TOTAL (8)	..	..	7,195

9. Extractions :	(a) Permanent Teeth	.. ..	3,366
	(b) Temporary Teeth	.. ..	7,080
	TOTAL (9)	.. ..	10,446
10. Administration of General Anaesthetics for	Extraction	.. ..	4,206
11. Orthodontics :			
	(a) Cases commenced during the year	.. ..	113
	(b) Cases brought forward from previous year	.. ..	259
	(c) Cases completed during the year	.. ..	69
	(d) Cases discontinued during the year	.. ..	27
	(e) Pupils treated by means of appliances	.. ..	326
	(f) Removable appliances fitted	.. ..	388
	(g) Fixed appliances fitted	.. ..	4
	(h) Total attendances	.. ..	1,692
	Orthodontal repairs	.. ..	59
	Surgical Appliances	.. ..	1
12. Number of pupils supplied with artificial teeth		.. ..	116
13. Other operations :	(a) Permanent Teeth	.. ..	4,429
	(b) Temporary Teeth	.. ..	658
	TOTAL (13)	.. ..	5,087

## **HANDICAPPED PUPILS**

Whilst there have been no changes of consequence in the general work in connection with ascertainment, placing and review of Handicapped Pupils, there has been considerable thought upon the subject at Ministry level. The Ministry Circular 11/61 ranges widely over the various aspects of the subject.

Among the topics dealt with in the Circular, is ascertainment and, in particular, informal ascertainment. This occurs on a large scale in our schools where a teacher, observing a pupil to be retarded in a subject, undertakes special instruction without reporting the case. This is commendable but ultimately the problem has to be faced in cases which do not respond. It appears that even teachers of considerable experience have no recognised standard as to when to report. Nevertheless, very few cases have been reported where delay in so doing has been unreasonable.

Where, however, backwardness in basic subjects is serious, it is felt that formal procedure is advisable. For this purpose the careful compilation of information under the various questions contained in Form 2 H.P. ensures a systematic investigation of the case, and accordingly the form has been retained for use in ascertainment by this Authority. Form 3 H.P. has also ceased to be obligatory for this particular purpose, and has been revised for use in connection with pupils dealt with under Section 11 of the Mental Health Act. However, a shortened version adapted to collect from the teacher information found in practice to be of value to the examining Medical Officer, is in use. Contact with the teacher is not restricted by the use of this form and Medical Officers, as occasion requires, consult with Head Teachers on the various problems presented by pupils who have been reported. Additional information is also obtained from a home visit by the nursing staff, from the Children's Officer, the Probation Officer and the hospital staff.

Nevertheless there are not wanting so called cases of specific reading or other educational defect in which causal factors are not immediately discernible, and a need is felt for some consultative centre to which reference may be made and specialised investigation undertaken. The question of a School Psychological Service is at present under consideration.

Towards the end of the year it became known that a third revision of the Terman Merrill Intelligence Tests would become available in 1962. For some time results obtained with the present tests have been under observation and certain interesting features which emerged are given in the Appendix.

The complement of Day Special Schools is now adequate. Two Remedial Classes, providing for 40 pupils, were set up during the year, but there are indications that these should be added to.

### Statistics

The following is a Statistical summary of the work performed in connection with Handicapped Pupils in the course of the year. As in previous Reports the Tables take no account of multiple handicaps, cases being allocated to the principal handicap.

#### 1. Ascertainment

##### Pupils Examined and Classified under Section 34 Education Act, 1944 — 1961

<i>Category</i>	<i>No. of Pupils Examined</i>	<i>No. of Pupils Classified</i>
Blind .. .. .	3	3
Partially Sighted .. .. .	3	2
Deaf .. .. .	6	6
Partially Deaf .. .. .	3	3
Educationally Subnormal .. .. .	171	148
Epileptic .. .. .	5	3
Maladjusted .. .. .	17	11
Physically Handicapped .. .. .	32	29
Delicate .. .. .	40	37
Total children Examined .. .. .	280	
Total children Classified .. .. .		242
Number of cases in which decision was deferred .. .. .		32
Number of children not Classified .. .. .		6

The recommendations made in respect of children who were classified were as follows :—

Day Special Schools .. .. .	125
Residential Special Schools .. .. .	21
Home Teaching .. .. .	8
To stay in Ordinary School with special facilities .. .. .	80

## 2. The Provision of Special Education

### A. Number of Pupils newly placed in Special Schools — 1961

<i>Category</i>	<i>Day</i>	<i>Residential</i>
Blind .. .. .	1	—
Partially Sighted .. .. .	—	—
Deaf .. .. .	4	—
Partially Deaf .. .. .	13	1
Educationally Subnormal .. .. .	79	17
Epileptic .. .. .	—	3
Maladjusted .. .. .	2	1
Physically Handicapped .. .. .	20	3
Delicate .. .. .	37	1

The number of children awaiting placing at the end of the year were :—

Day Special Schools .. .. .	27
Residential Schools .. .. .	19

### B. Number of Pupils being educated in Special Schools — December, 1961

<i>Category</i>	<i>Day</i>	<i>Residential</i>
Blind .. .. .	2	7
Partially Sighted .. .. .	18	1
Deaf .. .. .	20	4
Partially Deaf .. .. .	30	1
Educationally Subnormal .. .. .	349	57
Epileptic .. .. .	2	8
Maladjusted .. .. .	18	11
Physically Handicapped .. .. .	85	4
Delicate .. .. .	91	5

Number of pupils receiving Home Teaching .. .. .	9
Number of pupils in Hospital School (Stannington) .. .. .	67

### 3. Periodical Review of Handicapped Pupils

#### Number of Pupils Re-examined prior to reaching school Leaving Age — 1961

<i>Category</i>	<i>Number Reviewed</i>
Blind .. .. .	6
Partially Sighted .. .. .	22
Deaf .. .. .	4
Partially Deaf .. .. .	40
Educationally Subnormal .. .. .	156
Epileptic .. .. .	10
Maladjusted .. .. .	23
Physically Handicapped .. .. .	113
Delicate .. .. .	149

Arising out of these re-examinations recommendation was adjusted as follows :—

Change of School .. .. .	21
Declassified .. .. .	8
Reclassified with change of School .. .. .	8
Notified as Unsuitable for education at school .. .. .	9
Decision unaltered .. .. .	477

### 4. Final Examinations

#### Pupils Examined on reaching School Leaving Age, 1961

<i>Category</i>	<i>No. Examined</i>	<i>Requiring Supervision</i>	<i>Not Requiring Supervision</i>
Partially Sighted .. .. .	1	—	1
Deaf .. .. .	4	—	4
Partially Deaf .. .. .	2	—	2
E.S.N. .. .. .	33	26	7
Epileptic .. .. .	1	1	—
Maladjusted .. .. .	1	—	1
Number of Pupils denotified under Section 11 of the Mental Health Act .. .. .			
			1

## RESIDENTIAL SCHOOLS

This Authority was one of the first to avail itself of the provisions of the Education Act of 1918 to provide Residential Schools for suitable pupils and, pursuant of its powers under Sections 52 and 56 of the Education Act, 1921, there was a tendency to provide residential special educational treatment for a relatively large number of pupils from the Cottage Homes. It is understandable therefore that when the Home Office took over the work, the Children's Officer in Newcastle looked to the Education Authority to provide residential education on a material scale. It has recently been shown by Dr. Christine Cooper\* that this is not unreasonable, for the class of deprived children include a very considerable proportion of Handicapped Pupils.

Nevertheless, the examining medical officer has to keep a very clear head when considering residential education and resist the clamour to remove the pupil from his environment because home conditions are unsatisfactory. It should be remembered that even an efficient residential school is not a substitute for a home, but should be supplementary to it. It should be recommended primarily for educational reasons, for example — 'where there is not within reasonable travelling distance a school which provides the essential facilities which the pupil requires.' In this connection the maladjusted pupil presents a peculiarly complex problem. It is easy to plead that the emotional balance of the child will be restored by his removal from the tensions of the home, or that by such removal from his present difficulties, emotional disturbance will be prevented before it reveals itself as a difficult and serious problem. Such reasoning is based on the supposition that these difficulties inevitably occur in any particular type of home and takes no account of the fact that by definition a pupil must show evidence of psychological disturbance in order to be classifiable.

Whilst residential education is rather easier to secure than formerly, places have to be taken up where vacancies occur and pupils tend to be widely scattered in small numbers among many schools throughout the country as shown in the Table below.

\* A paper read to the Association of Medical Officers of Health (Northern Branch) October, 1961.

TABLE 14

Type of Pupil for which School Caters	Number of Pupils in each Residential School											
	1	2	3	4	5	6	7	8	9	10	11	12
Blind .. .. .	3				1							
Partially Sighted .. .. .	1											
Deaf .. .. .	3	1										
Partially Deaf .. .. .	1											
Educationally Subnormal .. .. .	7			3		1		1		1		1
Epileptic .. .. .		1	2									
Maladjusted .. .. .	5				1							
Physically Handicapped .. .. .												
Delicate .. .. .	6											
<b>TOTAL .. .. .</b>	<b>26</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>		<b>1</b>		<b>1</b>		<b>1</b>

### A. Local

### B. Elsewhere

In addition, children in care of the Local Authority are kept in touch with and visited by arrangement with the Children's Officer of the locality in which the school is situated.

Considerable care is taken in the placing of pupils in a suitable school. Schools are generally chosen which have been approved by the Ministry of Education and are shown in List 42. Those not chosen from the List are visited in advance by the Senior School Medical Officer. The status of the schools in which children have been placed are as follows :—

Public Bodies	17	Local Education Authorities	12
Religious Bodies	9	Private Enterprise	2

Whilst the pupil is away at school attempt is made to keep in touch with the home, which often shows some improvement after the child has gone away. Unfortunately there is no guarantee that it will not lapse when the pupil returns permanently after leaving school. For this reason, there does seem to be a case for bringing the pupils home for the last year of their school life, but the time is not opportune from an educational point of view. Pupils are reassessed at intervals in the same way as those attending local schools.

During the year two cases have been returned to Day Schools and have settled in so well as to suggest that a period of two to three years has brought about a complete readjustment of the pupil, but in the majority of cases the results are not spectacular.

## HANDICAPPED YOUNG PEOPLE

(BY MISS B. G. CALDERWOOD, B.A.)

During the year 81 boys and girls left special schools, but in addition there was a number of pupils in normal schools with some form of handicap which made it necessary to take particular care in finding employment. The number affected is indicated by the fact that one on the Special Case Register of handicapped pupils there are 349 boys and girls between 15 and 18 years of age. The types of disabilities are as follows :—

<i>Disability</i>	<i>Boys</i>	<i>Girls</i>	<i>Total</i>
Educationally Subnormal .. ..	53	33	86
Defective Vision .. ..	24	20	44
Defective Hearing .. ..	19	30	49
Epilepsy .. ..	8	10	18
Physically Handicapped .. ..	25	26	51
Pulmonary Tuberculosis .. ..	3	7	10
Tuberculosis (other than Chest) ..	2	3	5
Chest ailments (other than T.B.) ..	27	13	40
Defective Speech .. ..	2	2	4
Heart trouble .. ..	6	8	14
Spastic .. ..	2	2	4
Maladjusted .. ..	1	2	3
Other cases .. ..	7	14	21
<b>TOTAL .. ..</b>	<b>179</b>	<b>170</b>	<b>349</b>

Of the total register 10 are considered unemployable, 8 were in training or at the Occupation Centre, and 24 were registered as unemployable at the end of September, 1961.

During the year 202 were placed in employment (some in more than one job) and 182 were followed up by visits and letters.

The following is an analysis of the changes of employment of handicapped young people :—

Disability	First Job		Second Job		Three or more Jobs		In first job more than 1 year	
	B	G	B	G	B	G	B	G
Educationally subnormal	23	12	10	6	12	10	8	5
Defective vision .. ..	15	8	5	4	3	7	7	5
Defective hearing .. ..	12	18	4	5	3	7	4	10
Epilepsy .. .. .	3	2	—	1	4	4	—	—
Physically handicapped ..	10	11	5	4	4	8	4	5
Pulmonary Tuberculosis ..	2	5	—	1	1	1	1	2
T.B. (other than chest) ..	—	1	—	1	2	1	—	—
Chest ailments (other than T.B.) .. ..	12	7	6	1	4	4	7	2
Defective speech .. ..	—	1	1	—	—	1	—	—
Heart trouble .. .. .	3	2	3	4	—	—	1	—
Spastic .. .. .	—	—	1	1	—	—	—	—
Maladjusted .. .. .	—	2	1	—	—	—	—	1
Other cases .. .. .	2	3	2	7	2	2	1	1
TOTALS .. .. .	82	72	38	35	35	45	33	31

It will be seen that 154 boys and girls were still in their first job and 64 has been in their first job more than a year. In the case of 36 boys and 34 girls the change of job was considered to be due to their disability. The educationally subnormal boy or girl still has the greatest difficulty in keeping a job. This seems to be mainly due to slowness, inability to concentrate for long periods and, in some cases, behaviour problems. Added to this, of course, the general employment position this year tended to put the handicapped children at a disadvantage. Although on the whole the number of handicapped children unemployed at any one time has been comparatively small, there have been one or two unfortunate cases who have been unemployed for several months in spite of all efforts to place them.

During the year, six boys and four girls were recommended and accepted for courses of rehabilitation at Felling Industrial Rehabilitation Unit, and one boy and two girls were recommended and accepted for courses of training.

One boy suffering from muscular dystrophy, who was dependent on his wheel-chair for getting about, was found to be not up to the educational standard required for training because of having lost a lot of schooling. Arrangements were then made for him to have a home teacher, and six months after he managed to pass the educational test and commenced a course of commercial training at Finchale Abbey Training Centre.

A girl who, it was considered, would benefit by residential training, was accepted for a course of commercial training at St. Loyes, Exeter. A letter received from her which she typed herself indicated that she was happily settled and progressing satisfactorily.

Throughout the year there has been close co-operation with the school medical department staff, hospital staff, almoners, psychiatric social workers and mental health officers, and their information and assistance have been of great value in placing handicapped boys and girls in employment.

Thanks are also extended to Mrs. Cree, Assistant Youth Employment Officer, for all her efforts to help the handicapped young people. She resigned from the service in July, 1961 and Miss J. Faulkner, B.A., has taken over the responsibility for this side of the work.

## **SPEECH THERAPY**

(BY MRS. B. STRONG, L.C.S.T.)

### **1. Staff**

This year has shown an improvement in the staffing problem. Mrs. B. Strong was appointed in March as Senior Therapist, and Mrs. S. M. Skinner and Mrs. S. M. Gilmour (formerly Miss Robinson) have continued ably as Single-handed Therapists. Miss H. Miller, who was only here temporarily, left in March to go to Canada.

This completes the establishment as set out at present, but it is felt that at least one more therapist is desirable, if the numbers of children in the City requiring speech treatment are to be dealt with adequately.

### **2. Clinics**

Treatments have continued at the following district Clinics :

Atkinson Road  
Ashfield House  
Bentinck  
Middle Street

Three sessions are also held in schools in the Kenton area where pressure of work is very great. Extra sessions are needed at all Clinics, but especially Atkinson Road and Middle Street where the waiting lists are longest. The Speech Therapists also visit the Special Schools. :—

Condercum — E.S.N. Boys	.. ..	2 sessions
Headlam — E.S.N. Boys	.. ..	1 session
Silverhill — E.S.N. Girls	.. ..	1 session
Jesmond Dene Residential — E.S.N. Girls	.. ..	1 session
Pendower Hall — Day Open Air	.. ..	2 sessions

Again, it would be preferable for more sessions in these schools as the children here require greater attention.

### 3. School Visiting

More school visits have been carried out this year as so often this vital personal contact tends to be overlooked with the pressure of work in the Clinics. The Head Teachers and their staff have been most helpful and the freer discussion of problems has, it is hoped, resulted in greater benefit to the children concerned.

### 4. Types of Speech Defects

Children have been treated in the Clinics for the following defects :—

Dyslalia  
Dysphasia  
Dysarthria  
Dyspraxia  
Cleft Palate  
Stammer  
Retarded Speech and Language

### 5. Table of Work carried out at the Clinics during 1961

Number of children Treated	.. ..	495
Number of children Admitted	.. ..	236
Number of Treatments	.. ..	5,731
Number of children Discharged	.. ..	158

It is regrettable that so many appointments are not kept throughout the year, and that so often the children concerned are those in greatest need of treatment. The time too could be so valuable to others who are willing to attend.

Number of Children on Waiting List at 31st December 1961 177

## CONTAGIOUS DISEASE AND ITS PREVENTION

### 1. Notifiable Disease

There was no sizeable outbreak of communicable disease during the year. Cases of notifiable disease reported to the Health Department are shown in the Table below :—

TABLE 15

#### Notifiable Disease in School Children, 1961

<i>Disease</i>	<i>Number of Cases Reported — Aged</i>		
	<i>5—9 years</i>	<i>10—14 years</i>	<i>Total</i>
Dysentery .. .. .	5	2	7
Acute Rheumatism ..	8	2	10
Paratyphoid .. .. .	—	2	2
Pneumonia .. .. .	2	4	6
Meningococcal Infections ..	1	—	1
Food Poisoning .. ..	—	2	2
Acute Encephalitis ..	1	—	1
Scarlet Fever .. .. .	26	8	34
Erysipelas .. .. .	—	1	1
Measles .. .. .	1798	63	1861
Rubella .. .. .	214	55	269
Whooping Cough .. ..	11	1	12
Tuberculosis —			
Pulmonary .. .. .	4	4	8
Non-Pulmonary ..	2	—	2

### 2. Contagious Skin Disease

The numbers of children known to have contagious Skin disease during the year were as follows :—

Impetigo .. .. .	163
Scabies .. .. .	15
Plantar Warts .. .. .	222
Ringworm .. .. .	72

One pupil, with extensive Impetigo secondary to Pediculosis, was in such a bad condition as to require immediate admission to hospital on account of toxæmia.

## B. Preventative Measures : Immunisation

### 1. *Poliomyelitis*

Pupils have been protected as follows :—

Initial Inoculation	..	..	..	2,559
Second Inoculation	..	..	..	2,856
Third Inoculation	..	..	..	780
Fourth (Booster) Inoculation	..	..	..	8,862

### 2. *Diphtheria*

Pupils were Immunised as follows :—

Primary Immunisation	..	..	128
Booster Doses	..	..	2,401

### 3. *Tetanus*

Number of Pupils Protected	..	..	11
----------------------------	----	----	----

### 4. *Yellow Fever*

Number of children of school age proceeding Overseas who received inoculation	..	..	..	133
---	----	----	----	-----

### 5. *Tuberculosis*

#### (a) *Tuberculin Testing*

	<i>Age Groups</i>				
	5 Yrs.	10 Yrs.	12 Yrs.	13 Yrs.	15 Yrs.
Number of parents to whom circulars were sent ..	3872	3664	3800	4132	—
Number of children for whom consents were re- ceived .. .. .	3368	3268	3251	3507	—
Number of children tested and read .. .. .	2820	2883	2668	2872	2217
Number of children found to be ' positive ' .. ..	354	366	448	541	2198

All children in the First Age Group who gave a ' positive ' reaction were referred to the Child Tuberculosis Clinic. Others were referred for Chest X-ray at the Mass Radiography Unit. The results of Tuberculin testing are reported to the Child Tuberculosis Clinic.

#### (b) *B.C.G. Vaccination*

The age at which pupils are vaccinated was brought forward from 13 years to 12 years, to meet the earlier maturation of children. Thus during the year both 13 and 12 year old children were protected, the numbers being as follows :—

Maintained Secondary Schools	..	5,193
Independent Schools	..	839
Further Educational Establishments	..	88
Special Residential School	..	29

## B.T.A. Comparative Tuberculin Testing Trials

### A Preliminary Report

(This work is organised by Dr. Mary Taylor at the  
Child Tuberculosis Clinic)

The British Tuberculosis Association have organised an investigation into the sensitivity of pupils to Tuberculin. The investigation was designed to include 10,000 primary school pupils, drawn from five areas in England. Newcastle upon Tyne was one of the Local Authorities approached and invited to participate. The Kenton area was selected as a suitable field for the work, and Dr. Mary Taylor has organised the local investigation, being assisted by Dr. A. R. Buchan.

For some time it has been known that certain children, without being contacts of any known case of Tuberculosis, have yet given faint reaction on testing. The question arose as to how far this might be due to the effect of organisms other than Human Tubercle Bacilli.

It was decided to test each child in the selected sample with both Human and Avian strains of Tuberculin, and compare the reactions produced by each. Children would be tested three times in three consecutive school terms, commencing with the Summer Term, 1961.

In the light of the reaction produced, certain children were investigated further. In those who gave a positive reaction a possible source of infection was sought for. Those who showed a more pronounced reaction in succeeding tests, were investigated radiologically and epidemiologically. This also applied to children who converted from negative to positive in the course of the tests.

The programme was incomplete at the end of the year and children tested to date were as follows :—

#### Number of Children Tested during 1961

Number offered Testing	.. .. .	2,404
Number Refused	.. .. .	56
Number who failed to return consent form	.. .. .	149
Number consenting	.. .. .	2,200
Number Tested and Read	.. .. .	2,064

The technique was carefully standardised by the organisers and for the purpose of recording, reactions were Graded 0 (negative), 1, 2, 3, 4.

#### Results

Number of Pupils Tested as above	.. .. .	2,064
Number of Pupils known to have been previously		
Vaccinated	.. .. .	278
Total Unvaccinated	.. .. .	1,786
Number of Unvaccinated Pupils giving a positive		
reaction (i.e. Graded 2, 3, 4)	.. .. .	46

Of these unvaccinated pupils, 46 reacted to Human Tuberculin to grade 2 or more, of whom 37 were under supervision as T.B. contacts and therefore known. The remainder are at present under investigation. An analysis of the results of preliminary testing in one of the five schools included in the investigation, is given below to illustrate the nature of the information which is being obtained.

TABLE 16  
Numbers of Unvaccinated Pupils showing differing degrees of Reaction to each strain of Tuberculin

Strain	HUMAN	AVIAN				
Grade of Reaction		0	1	2	3	4
0	166 =	150	15	1	—	—
1	51 =	4	40	6	1	—
2	4 =	—	—	4	—	—
3	7 =	—	2	2	3	—
4	0 =	—	—	—	—	—
TOTALS ..	228 =	154	57	13	4	—

The highly satisfactory response of parents was largely due to the energy of Dr. A. R. Buchan who, by personal contact, enlisted the co-operation of the Head Teachers in the area, and secured their influence with parents on behalf of the investigation.

## HEALTH EDUCATION

Arising out of periodic meetings between my department and representatives of the Head Teachers, a working party was formed to consider the needs of schools with regard to Health Education. This body having considered the aim and scope of the subject and having agreed that such instruction is the responsibility of the educationalist, undertook to ascertain by means of a questionnaire circulated among all schools present needs in terms of :—

1. Study days for teachers.
2. Discussion groups for teachers and senior pupils.
3. Literature.
4. Health Films.
5. Help from outside specialists.
6. An agreed syllabus.

### **First Aid**

During the year an attempt was made to standardise First Aid equipment and reorganise the supply of dressings and expendable items. A circular was addressed to all schools drawing Head Teachers attention to the second revision of the Ministry Pamphlet, 'Accidents in Schools' issued earlier in the year and a previous directive on the handling of the injured. Head Teachers were reminded of their responsibility to maintain a First Aid Cabinet to be readily accessible at all times during the session, and to be kept up to its proper complement of equipment by regular indent to the School Health Service.

It was anticipated that on receipt of the circular demands might exceed resources, as indeed happened. Accordingly, expendable equipment was given priority for order, and a special provision made to meet demands in respect of boxes in the Estimates for 1962-63.

### **Sanitation**

Public Health Officers have paid 8 visits to schools to deal with matters of sanitation.

### **Samples**

In this connection samples of water from the Swimming Baths at Whickham View and Rutherford Grammar Schools, have been taken and submitted for examination at regular intervals.

Samples of crayon pencils on issue to schools, were sent by the School Health Department for analysis, and found to contain lead chromate in excessive quantity. Representations were made to the firm supplying them and the matter rectified.

Samples of drinking straws found in one school were also sent for examination, and reported upon favourably.

## OUR CONTEMPORARIES

No report of this nature would be complete without due recognition of many bodies, both statutory and voluntary, who side by side with the School Health Service, work for the betterment of the health of the school child. At its inception half a century ago, the School Medical Service was the sole statutory repository of this trust. Today the position is greatly changed. If one were to set down a list of the various agencies as they come to mind with which the Service makes contact in the course of its daily work, it would appear as follows :—

<i>Other Statutory Bodies</i>	<i>Local Authority</i>		<i>Voluntary Bodies</i>	<i>Private Enterprise</i>
	<i>Other Depts.</i>	<i>Education</i>		
Health Services : Hospitals General Practitioners Opticians Courts : Probation Officers Armed Forces	Health Children's Welfare Police	Heads of School Depts. School Welfare School Meals Physical Educ'n Youth Employment	N.S.P.C.C. Children's Homes Associations Spastic Diabetic Epileptic British Red Cross Society	Trades : Boot & Shoe Toilet & Cosmetic Medical Appliances Private Schools Dancing Classes and Dramatic Schools

Incomplete as this list is, it shows the wide influence of the Service in pursuance of its aims, and obviously suitable recognition can be given to a selected few only and that in the briefest terms.

### A. Education Department

(i) It is with Headmasters and Mistresses that School Medical Officers, in the course of their duties, come into most frequent contact, and each have come to place their confidence in the other.

To the Staff of Schools, Doctors and Nurses are grateful for their hospitality, often cheerfully given in the face of difficulty ; for the good offices of teachers by using their influence in support of medical staff with doubting or lethargic parents. On the other hand the Medical Officer is able out of his specialised knowledge, to assist the teaching staff with some of their problems, and to reciprocate by using his influence with parents and children. The scope of education and medicine is so wide that a considerable common ground is shared by both.

At a higher level, representatives of Head Teachers have conferred regularly with the Principal School Medical Officer on a variety of current problems which include — School Tuckshops ; Fluorinated Spearmint, and Health Education, including Juvenile Smoking. These discussions have been lively and fruitful and are referred to in Part VI.

#### **(ii) The School Welfare Department**

The School Attendance Officer of former days is now designated a Welfare Officer in recognition of his wider responsibilities in relation to the welfare of the whole child. His interest extends to matters of health, of control and security at home, and to the well being of the child beyond the home during out of school hours.

In routine home visits these officers come across many children requiring the attention of the school or family doctor, and are instrumental in their receiving medical attention.

In his coming and going between home, school and clinic, the officer is able to place at the disposal of doctor, nurse and teacher, a fund of local information which is most valuable to them in dealing with individual children.

Regular school attendance is not an end in itself. Essential as it is to effective instruction in school, it also is the basis of education in its widest sense and ensures the mental, moral, spiritual and physical welfare of the school child. Thus it comes about that a large number of pupils submitted for statutory examination as Handicapped Pupils were originally referred by School Welfare Officers.

It can be readily understood that the Organiser of Child Care is a valuable member of the Co-ordinating Committee.

The Welfare Department has moreover statutory powers, through the Courts, which include the removing of the pupil from the custody of the parent, not merely on grounds of neglect, but as being beyond parental control. Drastic as such action is, and consequently not used save in extreme cases, it proves on occasion to be the only effective approach.

#### **(iii) The Youth Employment Service**

This Service takes over where other Education services leave off. There is nevertheless a close bond between the two Services. School Medical Officers complete a medical report on

each leaver, indicating which forms of occupation might be detrimental to the young person and in so doing receive a stimulus and interest in the school child up to the end of his school career. Moreover, this interest is extended to assess the pupil as a potential worker in industry.

Thus the influence of the Service is carried over into a subsequent stage of life.

#### **B. (i) The Health Department**

Liaison with the Health Department is naturally close. All Maternity and Child Welfare Records are passed on as the pupil enters school and with them continuity of care established. They contain a considerable amount of essential information which would take a long time to collect. Informal interchange of information between Health Visitors and Nurses concerning families, is encouraged. Pre-school handicapped children are reported by the Senior Child Welfare Medical Officer for ascertainment, or for notification, as a preliminary to securing special education or institutional care. At the same time it is frequently found convenient to parents to provide booster immunisation against Diphtheria, or vaccination against Poliomyelitis for pre-school children in School Clinics along with older brothers and sisters now at school. In the sphere of mental health excellent relations have existed between the Mental Health Officers and the Service. A Medical Officer of the Education Authority supervises children at the Junior Training Centre, whilst Dr. Peter Morgan has assisted with the medical examination of pupils referred from the Juvenile Court. This latter has made considerable demands upon his time.

#### **(ii) The Children's Department**

This department works closely with the School Health Service. We are indebted to the Department for much information concerning difficult cases — children with behaviour difficulties or other handicaps which do not readily fall into any of the recognised categories, or for whom there is no specific educational treatment which caters for their individual needs.

As referred to elsewhere, children in care who have been placed in residential schools, are supervised by the Children's Department whilst at school. If the school is at a distance from Newcastle, arrangements are made for the Local Children's Department to visit the school and report on the child.

The School Health Service reciprocates by inspecting all children taken into care and at regular intervals thereafter.

The Department is another recognised source of information concerning pupils requiring to be ascertained as needing special educational treatment.

### **(iii) The Welfare Department**

This Department, now fused with the Health Department, is responsible for all Handicapped Young people on leaving school, and for Blind pupils of all ages. Their visitors are useful in supplying background information. The School Health Service reciprocates by assisting this Department to revise its Register at regular intervals.

### **C. (i) The Probation Service**

Probation Officers are ever watchful for Educationally Subnormal and Maladjusted pupils placed under their supervision, and are in constant communication with schools and the School Health Service. Where probation appears ineffective, admission to a Residential school proves, on occasion, to be a useful alternative to returning the offender to Court. In other cases, the support which probation has to offer may be instrumental in retaining a pupil in a day school where rehabilitation may be effected in the pupil's normal environment with a better prospect of permanency.

### **(ii) Hospitals**

In accordance with Circular 179/49 this Authority delegates the greater part of its duty to provide medical treatment to hospitals and general practitioners. It also refers pupils for consultant opinion, 487 being so referred during the year. Prior to arranging an appointment, the General Practitioner is given an opportunity to make arrangements himself. Pupils so referred have been seen expeditiously and useful reports have been received from the consultants. Duplicates of these reports are sent to the General Practitioner.

Where there is difficulty in procuring the attendance of the parent and child at an Out-patient Department, the School Nurse home visits and, on occasion, may escort the child.

Accidents are handled with a minimum of formality in the Hospital Casualty Departments. Here, a word of appreciation is due to the City Ambulance Service for the promptitude with which casualties are evacuated from school or clinic.

The integration of the Services is demonstrated in the Table below as it pertains to special types of treatment :—

TABLE 17

<i>Special Treatment</i>	<i>Contribution by —</i>	
	<i>Hospital Board</i>	<i>Education Authority</i>
Orthopaedic	Surgeons at Central School Clinic. Operative and other in-patient treatment at Sanderson Hospital School.	Physiotherapy and clerical staff. Premises and equipment. Supervision of splints and continuation of treatment. Special P.H. Schools.
Ear, Nose and Throat	Operative and other in-patient treatment. Out-patient Clinics. Hearing Aid Centre.	Hearing Assessment Clinic. Supervision of Hearing Aids. Hard of Hearing Class and Deaf Schools.
Ophthalmic	Operative and in-patient treatment. Out-patients — supervision of selected cases. Orthoptics. Certification of the Blind.	Screening of children at Periodic Inspection. Ophthalmic Clinic — Two ophthalmic practitioners employed and one seconded by the Hospital Board. Supervision of Spectacles. Certification of Blind and Partially Sighted. Partially Sighted Class and Blind Schools.
Skin Disease	Out-patient Clinics. In-patient treatment.	Skin Clinic. The treatment of scabies, pediculosis and warts. U.V.L. cases referred from Hospital.
Dental	General dental treatment at the Dental Hospital. Consultation for difficult cases referred from the School Dental Service.	School Dental Clinics with Staff. Oral Health Education.

**(iii) General Practitioners**

There has been remarkably little discord between local medical practitioners and the Service, partly because General Practitioners have little time for such, and partly because the respective roles of the family doctor and school medical officer

are well understood. Dr. Osborne, a long-established general practitioner, has contributed the following observations :—

“ One-third of the work done by General Practitioners deals with children of all ages. Invariably he is associated with his child patients from birth onwards. Not only does he attend them in illness, he has first hand knowledge of environment, parentage, temperaments and abilities. Over the years the General Practitioner gains an extensive and varied clinical experience, but his time is limited in this sphere due to the diversity of his work ; thus he is unable to undertake thoroughly, welfare and preventive work in respect of infants and children. Co-operation is most desirable and meetings at intervals should be arranged between General Practitioners and Local Authority Medical Officers so that problems and minor irritations could be discussed ”.

Inevitably there must be some overlapping in the spheres of activity of each, but this should be regarded as a guarantee of safe coverage for the child.

There are signs that the two branches of Medical Services are coming together. Thus, the issue of Poliomyelitis vaccine from the Central School Clinic has brought practitioners into the Clinic for the first time.

The Principal School Medical Officer as Medical Officer of Health, is a member of the Executive Council and the Local Medical Committee, and is thus able to establish personal contact with general practitioners.

#### (iv) Opticians

Early difficulties of the Supplementary Ophthalmic Services have been largely overcome, and in 1957 an arrangement was arrived at with representatives of the Optical Association whereby the parents right of choice as to who should undertake an eye test, was safeguarded. At the same time, opticians undertook to notify this Department of the names of pupils tested and for whom glasses were prescribed.

The time is opportune to further the association between opticians and the Service, for the latter has an opportunity to curtail the drifting of parents from one optician to another.

The large number of children tested by opticians eases a heavy burden for which the School Health Service was largely responsible prior to the National Health Service Act.

#### **D. Armed Forces**

More recently a close liaison between the School Health Services and the Army Institute of Education has emerged in connection with children proceeding with service families overseas. These children will attend Army schools whilst abroad, and the medical documents are forwarded to the Authorities with a view to maintaining continuity of medical supervision. In the case of Handicapped Pupils, Form 5 H.P. has been introduced by the Ministry to give added information.

#### **E. Voluntary Organisations**

The Annual Report for 1960 of the Secretary of the 'Boys and Girls' Welfare Society' contains an excellent exposition of the relations which should exist between statutory and voluntary bodies. The following brief extract is worthy of reproduction here :—

“ A charity must ensure that it achieves the objects of its very existence and must do so within the modern idiom. There has always been the danger, where Charities and Statutory bodies exist side by side charged with similar work, that time can be spent and is spent, sniping at one another, forgetting that each is trying to solve the same problem albeit in different ways . . . .

We should all be identified by a common ideal, the ideal of a complete system of coverage for children in want with the determination to care for the 'whole child' ”.

##### **(i) The National Society for the Prevention of Cruelty to Children**

This Society has had a close and valuable association with the Service from its earliest days. Inspectors are frequent visitors to our School Clinics where problems are discussed.

A representative of the Society is a co-opted member of the Co-Ordinating Committee.

The School Health Services Committee, recognising its indebtedness to this Society for its valuable work, makes an annual grant which has in recent years been increased.

##### **(ii) Children's Homes**

Homes in the locality frequently provide a solution to domestic problems which are beyond the scope of either the Education Services or the Children's Department. The following Homes in the locality should be mentioned :—

Dr. Barnardo's

The Northern Counties Orphanage

The Poor Children's Holiday Association

Nazareth House

St. Vincent's, West Denton

##### **(iii) The Diabetic Society**

This Society, among its many activities, offers a summer holiday to child diabetics.

#### (iv) The British Red Cross Society

This Society also offers a holiday to Handicapped Pupils. Ten children were recommended by School Medical Officers during the year.

#### (v) The Percy Hedley Centre

Newcastle upon Tyne is justly proud of the work of the Percy Hedley School for Spastics. In addition to its normal activities as a school, it provides a diagnostic and assessment service for certain other pupils in addition to the child with cerebral palsy. The Medical Director also gives expert advice concerning the management of spastic pupils in ordinary schools.

#### Research

Academic bodies engaged in research have recognised the opportunities possessed by the School Health Service for field work and have enlisted its help. This is both a compliment and an incentive. During the year assistance has been given with the following investigations :—

<i>Sponsor</i>	<i>Nature of Investigation</i>	<i>Assistance given</i>	<i>Number of Children</i>
Institute of Child Health, University of London and Society of Medical Officers of Health.	Population Survey.	Home Visits.	32
Department of Child Health, King's College, Newcastle.	Thousand Families Survey.	Weighing and Measuring.	535
British Tuberculosis Association.	Comparative Tuberculin Testing.	Heaf Testing.	2064
Dept. of Health for Scotland.	Enquiry into Virus Infections in Pregnancy.	I.Q. Audiometry and general medical examination.	1

To these, our contemporaries, we render thanks for their inspiration, help and comradeship. They have enabled the Service to extend to a wider sphere of influence than would have otherwise been possible, and to demonstrate an unsuspected adaptability to each new enterprise which gives the lie to rumours of its rigidity and obsolescence.

## APPENDIX

### The Behaviour of the Intelligence Quotient of Retarded Pupils during School Life

In recent years the original concept of Binet that the intelligence ratio (as expressed by the percentage mental age of the actual age) of the pupil, remains constant throughout early life, has been open to question \*(Fraser Roberts). This is a point of more than academic interest to the Medical Officer engaged in the review of educationally subnormal and other handicapped pupils, for educational progress has to be watched against a shifting background of ability, and it is important when considering adjustments of special educational treatment to take into consideration possible movements of the Intelligence Quotient. Although these changes were known in a general way, it seemed desirable to know more precisely the trends of Intelligence Quotient estimates as made by Medical Officers working in this department, and a preliminary report was made available to them about two years ago. The publication of a third revision of the Terman Merrill tests, and its replacement of those in present use, has inevitably precipitated a final report which is included as a record of the nature and quality of the work being effected.

There is, of course, always an element of uncertainty in test results. Seldom will a pupil reproduce the same performance on two occasions with the same tests and even the same tester. This is well illustrated by examining the results of testing in a body of pupils (which incidentally included a large number of emotionally unstable pupils). These pupils were retested within the year, and the following discrepancies observed between the test results.

#### Discrepancies between Test Results

Points		20	15	12	10	8	6	4	2	0	
Above	} <i>Previous Test</i>	1	2	2	4	5	6	5	13	26	
Below		—	—	1	—	1	6	7	10		
Total Children		1	2	3	4	6	12	12	23	26	= 89

The material used consists of 1396 pairs of tests as they came to hand in the course of routine work. The children were

\* Fraser Roberts, 1952. *British Journal of Psychology, Statistical Supplement V, Part II.*

largely referred on account of retardation and the range of Intelligence Quotients were as follows :—

<i>Intelligence Quotient</i>	<i>% Boys</i>	<i>% Girls</i>
Under 105	0.4	—
100	—	—
95	1.2	—
90	1.7	2.28
85	8.1	6.85
80	14.2	10.8
75	20.0	20.56
70	20.0	21.56
65	20.2	14.8
60	6.2	16.0
55	5.3	5.14
50	2.0	1.14
45	0.4	0.57
	<hr/> 100.0	<hr/> 100.00

Trends have been observed by noting the discrepancies between pairs of results separated by intervals of 1, 2 and 3 years. There was insufficient material available to trace with accuracy trends of intervals greater than three years. Intelligence Quotient differences were broken down into ages, as it was anticipated that tendencies of gain or loss would vary at different ages. The findings were as follows :—

#### **Trends of I.Q. Movements (Merrill Terman, 1937 Revision)**

##### **ANNUAL FALLS**

Age of Child at

2nd Test (years)	6	7	8	9	10	11	12	13	14	15	16	Total
Number of Observations	15	22	60	72	66	44	60	30	43	13	41	466
Mean Movement		—	—	—	—	—	+	—	+	+	—	
Standard Error	±	1.23	0.78	0.9	0.6	1.12	0.7	0.9	0.9	1.5	0.75	

##### **Discrepancies between pairs of I.Q.'s**

		20	15	12	10	8	6	4	2	Identical
Number of Discrepancies	+	3	5	6	9	16	34	33	45	73
	—	5	7	6	22	39	40	59	64	

57%

## BIENNIAL FALLS

Age of Child at 2nd Test (years)	6	7	8	9	10	11	12	13	14	15	16	Total
Number of Observations	4	7	18	51	65	66	101	52	110	33	90	637
Mean			—	—	—	—	—	—	—	+	+	
Movement			6.2	1.8	4.0	4.4	4.0	2.4	0.8	1.6	0.5	
Standard Error $\pm$			2.3	0.86	1.0	0.85	0.8	0.9	0.6	1.0	0.6	

### Discrepancies between pairs of I.Q.'s

		20	15	12	10	8	6	4	2	Identical
Number of	+	2	7	7	12	12	28	43	59	81
Discrepancies	—	11	20	20	26	36	68	75	90	
54%										

## TRIENNIAL FALLS

Age of Child at 2nd Test (years)	7	8	9	10	11	12	13	14	15	16	Total
Number of Observations	4	5	10	20	25	47	24	24	15	30	204
Mean				—	—	—	—	—	+	+	
Movement			—5.8	4.6	4.8	7.0	3.2	0.6	2.4	0.6	
Standard Error of Mean $\pm$			3.	1.6	2.2	1.4	1.5	0.9	2.1	1.2	

### Discrepancies between pairs of I.Q.'s

		20	15	12	10	8	6	4	2	Identical
Number of	+	2	3	4	3	3	8	11	15	22
Discrepancies	—	6	19	9	11	10	27	26	25	
49%										

Differences in movement were looked for between those occurring in different Intelligence Quotient levels and between boys and girls. The findings are set out in the Table below. The pattern of fall appears to differ in the two series, lower Intelligence Quotient levels being somewhat better held in girls.

TABLE 18

**Analysis of Intelligence Quotient movements in terms of Age and Sex. (Based on 350 pairs of Intelligence Quotients)**

<i>Range of Intelligence Quotient Initial Test</i>	BOYS				
	<i>After 5 years</i>		<i>On School Leaving</i>		
	<i>No. Observed</i>	<i>Mean I.Q.</i>	<i>No. Observed</i>	<i>Mean I.Q.</i>	<i>Mean Interval</i>
54—59	10	55.5	4	56	8½ years
Less 65	24	58	17	68	8 "
" 70	22	59	18	60	7½ "
" 75	24	65.5	16	66	8 "
" 80	20	66	15	66	7½ "
" 85	24	76	12	73	7½ "

<i>Range of Intelligence Quotient Initial Test</i>	GIRLS				
	<i>After 5 years</i>		<i>On School Leaving</i>		
	<i>No. Observed</i>	<i>Mean I.Q.</i>	<i>No. Observed</i>	<i>Mean I.Q.</i>	<i>Mean Interval</i>
54—59	8	60	4	58	7 years
Less 65	17	58	7	56	7½ "
" 70	16	65	10	68	7½ "
" 75	23	66	16	65	8 "
" 80	16	67	12	68	7½ "
" 85	10	68	5	67	8 "

These figures are peculiar to pupils attending Special Schools or Classes in that Intelligence Quotients have not been followed through in the case of more retarded pupils who are systematically removed from further observation in this Department when they become unsuitable for education in school and are reported to the Local Health Authority. Likewise, brighter pupils are observed after de-classification only so long as is necessary to confirm that rehabilitation is permanent.

## Conclusion

It will be observed that rather more than half the retest results fall within five points of those of the initial test. Falls are greatest during the years 9, 10, 11 and 12. The reason for this seems to be due to scholastic failure. The children were selected on this account and over this period the tests acquire an increased academic content as shown in Fig. 1.

It will also be noted that there is a tendency for the Intelligence Quotient to rise in the final year at school. This is the result of artificially weighting the Intelligence Quotient and is a feature of the tests. This is illustrated in Fig. 2 which was prepared by plotting the score against the chronological age (as found in the Tables at the end of the Manual of Tests) for certain Intelligence Quotient ranges, and illustrates how an Intelligence Quotient may be maintained on a diminishing test score in the higher chronological ages.

