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(Education Committee)

# ANNUAL REPORT

of the

PRINCIPAL SCHOOL MEDICAD OFFICER

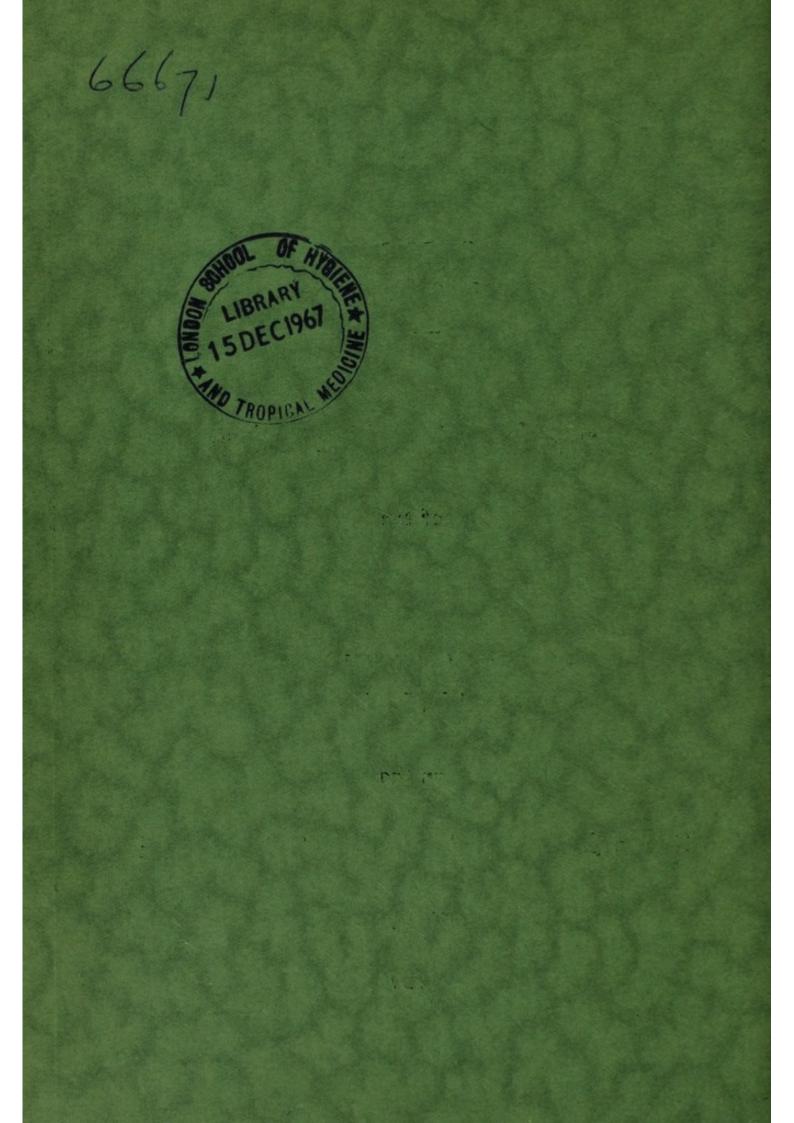
W. H. P. MINTO

on the

# SCHOOL HEALTH SERVICE

for the year

1957



# CUMBERLAND COUNTY COUNCIL

(Education Committee)

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# PRINCIPAL SCHOOL MEDICAL OFFICER

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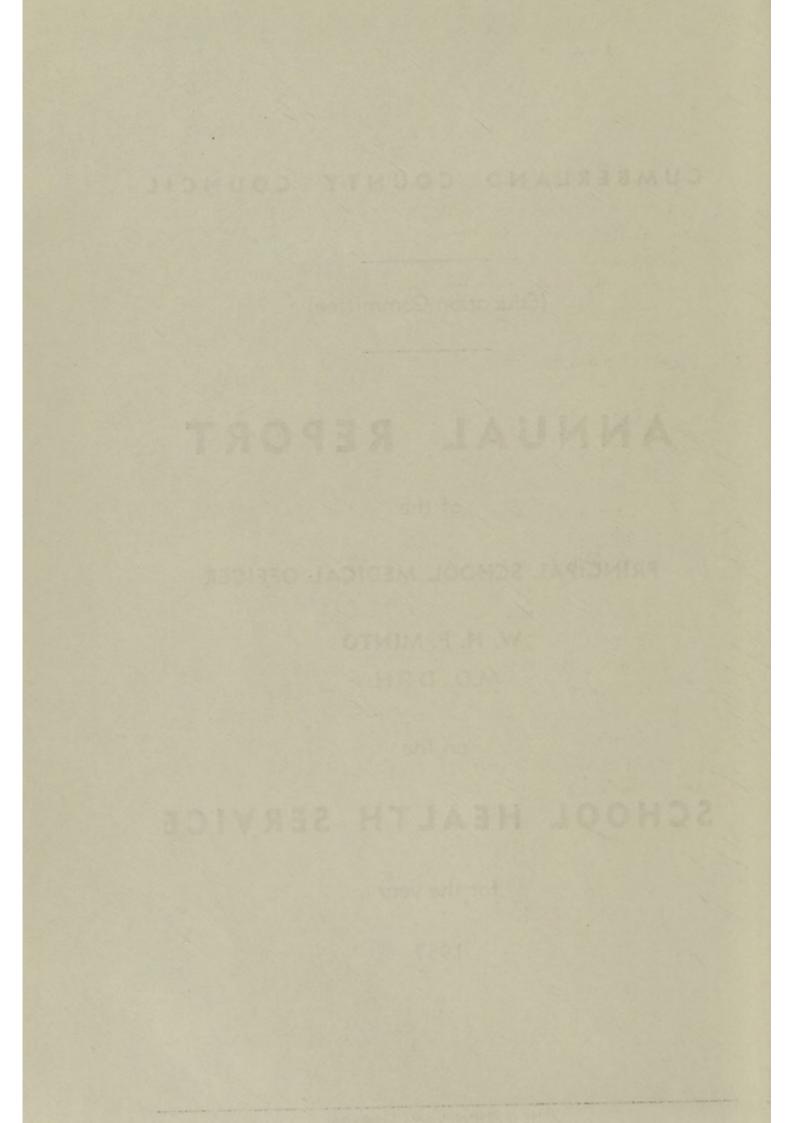
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# SCHOOL HEALTH SERVICE

for the year

1957

Howe of Brampton, Ltd., Cumberland.



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### PREFACE

### To the Chairman and Members of the Education Committee

Mr. Chairman, My Lord, Ladies and Gentlemen,

I have the honour to present the annual report on the school health service for the year 1957.

It is traditional to acknowledge at the end of a preface help received. This year I am breaking with precedent to pay tribute to the teachers both for the wonderful help which they have given in securing the registration for vaccination against poliomyelitis of 20,892 schoolchildren in Cumberland, and also for their forbearance and their assistance in the carrying out, often at short notice, of the vaccination programme. Without their co-operation in the schools I do not hesitate to say that these satisfactory results could not have been achieved and this is only one example of the excellent relationship which exists between the Health and Education Departments at all levels.

In 1957, for the third year Mantoux testing, mass radiography, and B.C.G. vaccination where necessary, were offered to all schoolchildren in their fourteenth year, including those attending private schools, and the acceptance rate, bearing in mind that some of the non-acceptors have already been dealt with under the contact scheme, can be regarded as satisfactory. When the tuberculin sensitivity of school entrants was surveyed in 1954 the need for further local surveys was clearly established and these are now being carried out with the object of case finding, i.e. to trace the sources of infection of those infant children who are found to be positive to the Mantoux test.

The Clinic for Handicapped Children at Workington is proving a successful innovation. It was started for children suffering from cerebral palsy, but this service is now being extended to other groups of handicapped children. The aim of this clinic, which is staffed by an assistant county medical officer who has a special interest in handicapped children, is to study developmental progress and fully assess social and educational needs. I include a report by Dr. Regester on socio-medical aspects of cerebral palsy in Cumberland and he clearly demonstrates that, apart from the obvious benefit to individual children and their parents, the work is valuable in elucidating the many and varied factors which may be associated with this distressing complaint.

The importance of both early diagnosis and early auditory training in order to prepare the deaf child for special education and the partially deaf one for the best possible chance of education in an ordinary school is now generally realised. Early auditory training enables the child with hearing difficulty to make normal mental development and avoid those behaviour difficulties which are prone to arise from frustration. Furthermore, if efforts are not made to utilise residual hearing as early as possible it is often lost. When it is realised the nearest facilities for adequate auditory training of this type have been in Manchester, it clearly follows that in a county like Cumberland the development of an adequate service for the ascertainment and treatment of defective hearing is very necessary on geographical as well as the usual grounds. During the year under review medical officers and health visitors have had special training in the techniques involved, and the hearing of the pupils in the residential E.S.N. schools, and of children suffering from cerebral palsy, and speech defect has been tested by the pure tone audiometer, and other appropriate means. In addition routine sweep testing by an audiometrician is being undertaken to screen the hearing of school entrants accurately and quickly. An audiometric room is under construction in Workington and the committee has approved the appointment of a peripatetic teacher of the deaf.

I am never certain that I like the term health education. It seems in a sense almost a contradiction in terms. There is no uncertainty, however, in the findings of the Medical Research Council on the relationship between cigarette smoking and an increased incidence of cancer of the lung. This must raise a great challenge to those concerned with health and with education. The objective, clear as crystal, is to discourage young people from starting to smoke, or, if that proves to be impossible, to discourage them from learning to smoke heavily, but the means by which this may be achieved could hardly be more obscure. I think there can be only one answer and that is by example — the young will not refrain from practising this art as long as they see their elders, parents and teachers, enjoying it.

With the erection of new schools and the development of the educational building programme, the need for a school medical officer to interest himself in school buildings and equipment is becoming increasingly important. Where he is also a medical officer of health to a district, his advice on sanitary matters to the heads of some of the older schools, particularly small rural schools, is of great value. I have drawn attention later in the report to a survey of every school in the county based on the recommendations of the existing Ministry of Education standards.

I should like to acknowledge the contribution made by Dr. Machell towards the compilation of this report, and finally I should thank the Committee for the help and encouragement I have received during the year, and the Director of Education and his staff and, in particular, the head teachers for their support.

I have the honour to be,

Your obedient servant, W. H. P. MINTO, Principal School Medical Officer.

County Health Department, 11, Portland Square, Carlisle.

February, 1958.

# 24 AUG1950 SERVICE SCHOOL HEALTH

Staff as at 31.12.57

SCHOOL MEDICAL AND DENTAL STAFF AT 31st DECEMBER, 1957:

Principal School Medical Officer:-\*W. H. P. Minto, M.D., D.P.H.

Deputy Principal School Medical Officer:-\*R. K. Machell, M.B., Ch.B., D.P.H. School Medical Officers:-

*John Neil Dobson, M.B., Ch.B., D.P.H. )	
John R. Hasson, M.B., Ch.B., D.R.C.O.G.	Also District
(Part-time General Practitioner) )	Medical
*James L. Hunter, M.B., Ch.B., D.P.H. )	Officers of
*Isaac S. Jones, M.R.C.S., L.R.C.P., D.P.H. )	Health
Mary A. R. Marshall, M.B., Ch.B.	and
(Part-time 6.5.57 — 8.7.57) )	Assistant County
*John Patterson, M.B., B.Ch., B.A.O., D.P.H. )	Medical
*Ethel A. Perrott, M.D., B.S., D.P.H. )	Officers
*Kenmure J. Thomson, M.B., Ch.B., D.P.H. )	
Enid M. O. Campbell, M.B., Ch.B., D.P.H.	
*Agnes T. Harbison, M.B., Ch.B., B.A.O., D.P.H. )	Also
(resigned 30.4.57) )	Assistant
Percy Thomas Regester, M.R.C.S., L.R.C.P., D.P.H. )	County
Catherine Helen Mair, L.R.C.P., L.R.C.S.(Ed.) )	Medical
(commenced 9.7.57) )	Officers

\* Approved by the Ministry of Education for the ascertainment of educationally subnormal pupils.

Principal School Dental Officer:-A. C. S. Martin, L.D.S.

School Dental Officers:-

D. C. Lamond, L.D.S.
R. B. Neal, M.B.E., L.D.S.
A. R. Peck, L.D.S.
A. M. Scott, L.D.S.

### MEDICAL AUXILIARY STAFF:--

Orthoptist:-Miss J. Hodson, D.B.O.

Orthopaedic Physiotherapists:-

Miss J. M. Morris, M.C.S.P., M.E. Miss J. A. Fraser, M.C.S.P., O.N.C.

#### Speech Therapists:-

Miss D. Chapman, L.C.S.T. (resigned 31.3.57). Mrs. J. M. Moss, L.C.S.T. Miss A. M. Stevenson, L.C.S.T. (commenced 2.9.57). Mrs. S. E. Latimer, L.C.S.T. (26.4.57 - 25.7.57).

### NURSING STAFF:--

Superintendent Nursing Officer:-

Miss I. Mansbridge, S.R.N., S.C.M., Q.N., H.V.Cert.

Deputy Superintendent Nursing Officer:-

Miss S. Keeler, S.R.N., S.C.M., Q.N., H.V.Cert.

Assistant Superintendent Nursing Officers:-

Miss E. M. Main, S.R.N., R.S.C.N., S.C.M., Q.N., H.V.Cert. (resigned 11.11.57).

Mrs. A. Steele, S.R.N., S.C.M., Q.N., H.V.Cert.

Three full-time school nurses.

60 nurses and health visitors doing part-time school nursing, of whom 26 hold the health visitor's certificate.

### GENERAL STATISTICS

The area covered by the Local Education Authority comprises 967,054 acres and the estimated population of the Administrative County in June, 1957, was 217,600 an increase of 900 compared with the estimated population for 1956.

The number of pupils on the school registers in January, 1958, was 36,607 compared with 36,261 in the previous year, an increase of 345.

In January 1958 there were in the county:--

		No. of Pupils
Nursery Schools	1	40
Primary Schools	252	26,425
Non-selective Secondary Schools	18	5,876
Grammar Schools	9	3,878
Secondary Technical School	1	293
Residential Special Schools	2	
(One for educationally sub-normal boys, age range 9-16 years)		57*
(One for educationally sub-normal girls, age range 9-16 years)		38*
*These figures include the following children fauthorities:—	from ot	her
Carlisle City		8
Westmorland County		9

# MEDICAL INSPECTION

The same routine age groups were examined as in previous years, i.e. primary school "entrants", 10 year old children (born 1947) and secondary school "leavers" (14 year old children born 1943 in secondary modern schools, and 15 year old children born 1942, in grammar schools). The vision of all 8 year old school children (born 1949) was tested. Pupils at residential special schools are inspected annually, and those at the nursery schools are seen every term by the school medical officer in the area.

In 1957 school medical officers carried out a complete medical inspection at each school in the county.

The statistical tables relating to medical inspection are set out as Appendix A, at the end of this report. Figures relating to numbers of 8 year old children having tests for vision are included in the total number of Special Inspections.

# Findings at Periodic Medical Inspection

Periodic medical inspection was carried out on 10,864 pupils and of these 1,302 were found to be suffering from defects for which treatment was recommended, giving a percentage of 11.9%.

Comparative figures for the last 6 years are of interest.

		Total Periodic Examinations	Total pupils found to have defects	%.
1956	 	9,783	1,352	13.8
1955		8,691	1,632	18.8
1954	 	9,920	1,394	14.1
1953	 	9.747	1,569	16.1
1952	 	9,759	1,673	17.1
1952	 	8,675	1,412	16.3

### Physical Condition

The physical condition of 132 (247) children in the county was regarded as unsatisfactory in 1957, a percentage of 1.22% (2.43%). The figures in brackets are those for 1956.

# Ultra Violet Light Therapy

A Hanovia Prescription lamp for ultra violet and infra red radiation was gifted to the Millom Clinic by the Millom Rotary Club in their Jubilee Year and Dr. Perrot reports, "since 1955, a total of 62 children have received treatment, 12 in 1955, 15 in 1956, and 35 in 1957. The total number of attendances was 871 and the following conditions have been treated:—

Debility			 	21
Bronchitis			 	7
Insomnia			 	6
Ear, nose and this	roat con	ditions	 	7
Malnutrition		11 TO	 	3
Rickets and bony	deform	ities	 	7
Pink disease			 	2
Post poliomyelitis	weaknes	S	 	3
Other conditions			 	6

The results have been very satisfactory and the light clinic has proved itself worthwhile."

### Cleanliness

The school nurses are authorised to examine the person and clothing of any child attending school, and arrangements are made for routine inspections for this purpose. The school nurse not only follows up these cases, but reports to the school medical officer where necessary.

The school nurses made 76,513 examinations of children for verminous conditions and uncleanliness, compared with 84,286 in 1956. and of this total 1,029 (1,174 in 1956) children were found to suffer from infestation.

### Fol'owing Up

There was no change in the procedure whereby the school nurses follow up children who are found at medical inspection to be in need of treatment for a defect. Visits undertaken for this specific purpose were as follows:— 87 visits paid to 73 cases.

	No. of	No. of
Condition	cases	visits paid
Eye Conditions	 15	20
Skin Diseases	 3	3
Nose and Throat Conditions	 6	9
Ear Conditions	 16	16
Heart and Circulation	 he-	
General Cases	 28	32
Uncleanliness	 5	7
	-	adde - t
	73	87

Most of the school nurses are doing combined work and they are constantly in touch, in the course of their routine visiting with the school, the clinic, the family, and the family doctor, and this small number of visits specially for the purpose is no indication of the volume of work which is in fact undertaken.

# ASCERTAINMENT AND TREATMENT OF DEFECTS

### **Minor Ailment Clinics**

During the year arrangements have been made for school children to attend clinics at Keswick and Whitehaven (Mirehouse). The school health service clinics available are set out in Appendix C to the report. A total of 3,179 individual children attended the school clinics during the year, attendances at individual clinics and the types of case are set out below.

					Attendances
Clinic			Ne	ew Cases	All Cases
Alston				30	94
Aspatria				104	259
Brampton				185	408
Carlisle				124	159
Cleator Mod	or			106	607
Cockermout	h			450	826
Egremont				102	325
Frizington				99	278
Keswick				11	18
Maryport				219	712
Millom				309	912
Penrith				121	209
Whitehaven	(Mire	house)		23	49
Whitehaven	(Sand	thills I	_ane)	181	825
Whitehaven	(Woo	dhouse)		172	1,150
Wigton				169	288
Workington				611	2,339
				3,016	9,458

Defect	Conditions for which child		Attendances
Code No.	attended	New Cases	All Cases
1.	Cleanliness	2	4
2.	Infestation	32	116
4.	Skin Diseases	933	3,386
5.	Eve Diseases	511	1,716
6.	Ear Conditions	92	379
7.	Nose & Throat Conditions	99	205
8.	Speech Defects	26	27
9.	Lymphatic Glands	11	31
10.	Heart	9	22

11.	Lungs	 59	248
12.	Developmental	 8	19
13.	Orthopaedic	 67	120
14.	Nervous System	 34	89
15.	Psychological	 21	38
16.	Abdomen	 19	36
17.	Other Conditions	 1,093	3,022
		the barrent and	eline
		3,016	9,458

13

While the number of school children attending formal minor ailment clinics is declining, in fact a far wider use is being made of these clinics for other purposes, including more selective medical examination of handicapped children and vaccination and immunisation.

### Diseases of the Ear, Nose and Throat

The statistical information relating to diseases of the ear, nose and throat is set out in Tables IIIA and IIIB in Appendix A. It is of interest that of the 134 cases of otitis media noted, 16 were found at medical inspection to require treatment, while of the 66 cases seen at special examinations, 43 required treatment.

### Tonsillectomy

Principal school medical officers have been asked by the Ministry of Education to record from 1956 onwards whether or not each child at periodic medical inspection has undergone tonsillectomy at any time previously. The figures for Cumberland are as follows:—

Entrants Born 1947 Born 1943 Additional	  Periodic	  Total 1957 3,476 3,801 2,973 614	Boys 145 520 462	Girls 106 505 472	Tonsillectomy Total 251 (7%) 1,025 (27%) 934 (31%)	1956 Total 360 (9.5%) 897 (27.3%) 811 (30.0%)
Additional	Periodic	 614	77	55	132 (21%)	100 (25.1%)
		10,864	1,204	1,138	2,342(21.6%)	2,168 (21.3%)

In 1957 the figures were further broken down to show the differences between the sexes.

The national figures for 1956 are now available and there are some astonishing differences between apparently similar types of authority which will require further elucidation over the years as more details become available.

# **Provision of Hearing Aids**

The Ministry of Education require principal school medical officers to report for the year ending 31st December, 1957, the total number of pupils in schools who are known to have been provided with hearing aids: (a) in 1957, and (b) in previous years.

This information is set out in Table IV, Group 2 of Appendix A .

# Ascertainment and Treatment of Defective Hearing

Plans for the inauguration of a service to secure the early ascertainment and treatment of defective hearing, as described in the 1956 Report, were brought nearer fruition. With the object of securing earlier diagnosis a further group of health visitors and medical officers from the county attended courses at the Department of Education for the Deaf at Manchester University. These courses dealt with the methods of administration of the special tests required. The health visiting staff are now able to carry out adequate screening tests of hearing in the homes of babies and young children they visit, and in the infant welfare centres.

The importance of early auditory training cannot be over-stressed, because where there is residual hearing, if efforts are not made to utilise it as early as possible it is not infrequently lost, thus placing a further burden on both the individual child and the education system. The authority is at present advertising for a peripatetic teacher of the deaf, the first of three likely to be required for a fully comprehensive service for the county.

During the year two pure tone audiometers were purchased. One of the speech therapists, who has had experience in the use of this instrument, has tested the hearing of all children attending her clinic on account of speech defect.

In the Workington area a part-time audiometrician started work in December and she carried out screening tests using the pure tone audiometer in six of the Workington schools and also at the residential school for educationally sub-normal boys at Ingwell. Dr. Hunter reports on the findings to date from these two surveys, as follows:—

"SURVEY I. A total of 547 school children in infant classes in Workington were subjected to sweep testing in schools using the audiometer. Of these, 36 (6.7%) showed losses in hearing as follows:—

Slight		 25
Moderate		 9
Apparently sev	vere	 2

All 36 children were given appointments to be seen at the school clinic by the school medical officer. The recorded results (to 31.12.1957) are:—

### A. Slight cases.

(Two, three or four losses in different frequencies up to 35 dcb. mainly confined to one ear).

### Result

Did not attend	2	
Nothing abnormal found	5	Observe
Recent coryza	6	Leave alone
Wax in ear(s)	4	Treated at clinic
Coryza + wax	1	Treated at clinic
Post-operative deafness	1	Observe
Old otitis media	3	Observe
Perforation	1	Attending family doctor
Moist ear	1	Observe
Enlarged tonsils and		
Adenoids	1	Observe

Family History. A mother of a coryzal case wears a hearing aid.

Maternal History. One mother of twins had hyperemesis (one twin had a little wax: the other nil).

Children at risk. No conditions were found in the case history indicating that any child was at risk (outside the conditions given above).

### B. Moderate cases.

(Cases in which losses covered a greater range of frequency than in the slight cases but in which the deafness was not significantly great).

### Result

Did not attend	 	1	
Nothing abnorm	ected	1	H.F. loss after meningitis
Coryza		2	Treated at clinic
Coryza + wax	 	1	Treated at clinic
Adenoids	 	1	Referred to otologist — operation to be done
Old otitis	 	1	Observe
Large tonsils	 	1	Observe
Moist ear	 	1	Referred to otologist — result not yet known

No family history of deafness was found in these cases. The mother had had some form of toxaemia in pregnancy in one case (a twin sister with coryza: the other twin, a mild case, also having had a cold at the time of sweep testing).

Conditions in the child were represented by unilateral deafness occurring in a child who had had meningococcal meningitis at age  $2\frac{1}{2}$  years. The hearing losses were 20 dcb. at 1000 cps., 35 at 4000 and 30 at 6000 and 8000.

### C. Severe cases.

i.e. cases of significant deafness (Two).

(i) One case was of a boy with severe loss in the right ear probably due to old otitis media (loss 90 dcb. throughout frequencies except at 1000 in which loss was 30 dcb.).

The left ear had four losses at 20 or 25 dcb. He was an eight months child. The report of the otologist was not to hand by the end of the year.

- (ii) The second severe case (losses of 60 or 65 dcb. in right ear throughout the frequencies) did not attend because of mumps but the case was already under the care of an Ear, Nose and Throat Specialist."

Slight Moderate Severe	8 2 1
Analysis 4. Slight cases. Wax Tonsils and adenoids enlarged Thickening or retraction of drums	<ul> <li>4 Treated in school.</li> <li>1 Referred to otologist—report awaited One referred to otologist who states</li> <li>3 ears normal but see again in six months.</li> <li>One other already known to otologist —sinus infection under treatment.</li> </ul>
B. Moderate cases. High frequency loss in both ears	<ul> <li>Already investigated (one case). No</li> <li>hearing aid. The other referred to otologist — report awaited.</li> </ul>

### C. Severe case.

В

The one severe case, with losses throughout the frequency range of 50 - 60 dcb. is already known to the Ear, Nose and Troat Specialist."

# Visual Defects and Diseases of the Eye

The findings at medical inspection are set out in Table IV, Group 1, Appendix A of the report, and the arrangements for the provision of spectacles are unchanged. A routine eye test is carried out for each 8 year old child and letter "E" type test cards are available to school medical officers and health visitors so that they can test the vision of young children in the school entrant examination.

We should from time to time review our methods of routine medical inspection in the light of changing circumstances and I feel that this is particularly necessary where visual defects and diseases of the eye are concerned in the light of changing population habits—such as the use of television. Dr. Patterson had this need to constantly review our methods in mind when he reports on a survey which he has undertaken in this area.

"The first test of a pupil's vision in school is normally at 8 years of age. If no defect is found then, the next examination is at 11 years of age — approximately three years later and again if no defect at 14 years, another three years. I began to notice the number of pupils who were referred to me at the clinic with vision defects which had not been present at the 8 years of age examination but were present now at 9 or 10 years. As a result I began to test the vision of every child in every school at the routine School Medical Inspection. All children in 38 schools have had their vision tested in 1957 and all will be done in future because of the possibility of deterioration in one year. The extra time required is not great, perhaps the 5 and 6 year olds needing a little extra, but two people can make surprisingly short work of a class of 30 using the "E" card.

Vision of 6/9 is for observation and 6/12 or upwards is referred to a Consultant. With 5 year olds, 6/9 or 6/12 is for observation and 6/18 or upwards referred. Here 6/9 or 6/12 is re-tested by the school nurse after 3 months and necessary action taken. If still 6/9 or 6/12 then the child is re-tested in another 3 months and if 6/12 persists it is referred to the Consultant, 6/9 being re-tested at 3 monthly intervals. Of the 8 year olds vision defects were found in approximately 10% and in all others outside the prescribed age groups the figure is between 3 and  $4\frac{1}{2}\%$ . These are new defects which would not have been found until the next prescribed age group was reached. Of the 10% found at 8 years of age — most of these should be found earlier. Are not five, six and seven the most important ages for correct vision, when learning the basis of reading and writing? The ratio of cases referred to Consultant to those for observation only is 1 to 3.

The percentage of defects found at Grammar Schools was 5.6% where it would appear that the excessive amount of reading necessary produces deterioration in vision if a potential defect is present. The ratio of referrals to observations here is 1 to 1.5. An analysis of 12 defects found outside the prescribed age groups at a Grammar School was as follows:

- (a) 4 were over 14 years and had had last school M.I. the previous year These might have reached an opticion sometime later in life but some might not.
- (b) 3 were 13 year olds and had 1 year to go before routine leavers' examination (which includes vision testing).

(c) 5 had had normal vision the previous year at intermediate examination and so the defect would not have been found for 2 more years. If the defect became severe enough a teacher might spot it and refer it to the clinic but small defects are not so easily noticed."

# Ascertainment and Treatment of Squint

This is a developing service which should be extended with the introduction of further clinics at the hospitals in West Cumberland similar to that held in the Cumberland Infirmary. There are great advantages when the same orthoptist deals with children immediately after they have had an operation for squint. Mrs. Scott, the orthoptist reports on her work during 1957:

"Orthoptic exercises have continued to be carried out successfully at clinics in Carlisle, Workington and the Cumberland Infirmary. Attendances on the whole have been good and it is encouraging to note that regular attendances have been maintained from some patients as far away as Keswick (travelling to Carlisle) and Gosforth (travelling to Workington). When long distances have to be covered treatment is usual given fortnightly and in some cases monthly. The Infirmary clinic continues to be very successful in the pre- and post-operative observation which can be given there."

### East Cumberland

Number of patients on the register on January 1st, 1957		 42
Number of patients discharged during 1957		 47
Number of patients taken on treatment during 1957		 37
These were as follows:		
Convergent Strabismus:		
Manifest convergent strabismus, right or left		 8
Manifest convergent strabismus with hypermetropia		 1
Convergent strabismus with amblyopia		 4
Convergent strabismus with hypermetropia and amb	lyopia	 1
Fully accommodative strabismus		 6
Convergence excess		 4
Esophoria		 1
Esophoria with amblyopia		 1
Divergent Strabismus:		1
Manifest divergent strabismus, right or left		 2
Convergence deficiency		
Divergence excess		 5
Amblyopia		 3

Discharges:	
Cured 12 Not responding to treatment	3
Improved 18 Refused treatment	1
Cosmetically satisfactory 5 Left district Failed to attend – 5	1
West Cumberland	
a second	24
Number of patients on register on January, 1st, 1957	34
Number of patients discharged during 1957	43
Number of patients taken on treatment during 1957	30
These were as follows:	
Convergent Strabismus:	
Manifest convergent strabismus, right or left	8
Convergent strabismus with amblyopia	4
Convergent excess	5
Fully accommodative strabismus	6
Divergent Strabismus:	
Manifest divergent strahismus right or left	1
Exophoria with right hyperphoria	1
Divergence excess	2
Defect of accommodation	1
Defect of accommodation with convergence deficiency	2
	2
Discharges:	
Cured 11 Cosmetically satisfactory	2
Improved 9 Not responding to treat-	and the
Failed to attend 5 ment	2
Left district — 1.	

### Skin Diseases

The number of children referred from medical inspection for treatment of diseases of the skin during 1957 was 937, of whom 933 were seen at the school clinics during the year.

Returns from routine medical inspections showed a reduction by nearly 30% on the previous year's figure of skin diseases revealed in this way. Impetigo still constitutes approximately one quarter of these conditions but there is no doubt that without the constant vigilance of school nurses infection secondary to infestation would be far more widespread. Out of 76,513 individual examinations made by school nurses 1,029 pupils were found to be infested. In all cases the power of persuasion was considered preferable to the issue of cleansing notices or orders under Section 54 of the Education Act.

The incidence of verruca and "athletes foot" in Secondary or Grammar Schools where shower baths are provided can cause a certain amount of concern. An example of the importance of co-operation in this problem arose in a Grammar School in West Cumberland where the enthusiasm of the teacher of physical education for regular foot inspection brought to light some twenty cases of verruca and three of "athletes foot". The school medical officer and school nurse were called in and a combined attack which Dr. Hunter describes was planned. The physical education mistress was to maintain her regular inspections while the school nurse would carry out an independent survey after an interval of two weeks. Barefoot training was discontinued for the remainder of the term and strict control was kept to prevent borrowing of gym shoes. In addition to treatment by their family doctor or specialist, pupils were instructed to wash their feet regularly and change socks or stockings frequently. The floors of changing rooms were washed daily with a chlorine-containing solution and at the head teacher's request stippled rubber matting was provided at the showers. Examples of similar collaboration between teaching and medical staffs occurred during the year in regard to ringworm, and the fact that there were no more cases of this condition must to some extent be due to the awareness of heads of schools of the policy to exclude children with ringworm of the scalp or with lesions of the body that cannot be kept covered, as recommended in the joint memorandum of the Ministries of Education and Health issued in 1956.

# Orthopaedic and Postural Defects

Consultant clinics were held as shown in Appendix C and the orthopaedic scheme is unchanged. The orthopaedic physiotherapists, Miss Morris and Miss Fraser, report as follows:---

"Work in the Orthopaedic clinics has continued in much the same way as in previous years. On the whole attendances have been good and co-operation of parents is mostly satisfactory. The work of the clinics can be divided into two sections, first dealing with the physically handicapped child, and second with remedial treatment for minor defects in the otherwise normal child.

1. In this section the treatment and general welfare of children with cerebral palsy takes an important place in the clinic.

Constant review is needed in cases of paralysis following poliomyelitis, where walking irons, various other splints and shoe alterations all help to make the child as straight and active as possible — this also applies with cases of congenital deformity, club feet, dislocation of hip, etc.

Apart from splint supervision, corrective exercises, etc. advice has to be given on problems connected with a child's school life, as, for example, in relation to a child's ability to take part in physical education, to complete a whole day's school without undue fatigue, or to manage a long walk to school, and the possible necessity to provide transport, or whether a child's school desk and chair are the right height and comfortable if he has to wear a caliper.

By frequent clinic attendances the orthopaedic physiotherapist becomes familiar with the children and their parents, and is able to judge their progress and discuss their problems with the surgeon in charge or school medical officer. 2. On the remedial side, apart from numerous cases of flat feet and poor posture there are not nearly so many bad postural defects referred as in the past — due almost certainly to earlier correction of knock knees, bow legs and narrow chests and mild foot defects in the pre-school years.

The majority of children seen at clinics in their school years are referred because of flat feet and many of these are not strictly speaking flat, but due to bad habits of walking and standing, causing their shoes to wear down unevenly. These defects can be much improved by teaching correct standing and walking and by advice to parents on the correct type of shoe. Children are often found wearing entirely unsuitable shoes giving no proper foot support — this is very common in the teenage school girl — and they will rapidly improve with well fitting lace-up shoes which are usually an economy in the long run, from the parents' point of view."

Orthopaedic Treatment Undertaken during the year:-

Number on Aftercare register at 1.1.57			1,094
New cases during 1957			
Cases referred for Orthopaedic Physiotherapists only		••••	124
Cases reportified often proview direl			110
Cases renotified after previous discharge			18
Number removed from Register		611	118
Number on Register at 31 12 57			1,228
Attendances at surgeon's clinice			
Attendances at intermediate clinics			653
			2,535
Homes visited by Orthopaedic Physiotherapists	A. asm		328
Plasters applied			40
Surgical boots and appliances supplied and renewed (including		••••	
Cases receiving hospital treatment during 1057	insoles)		480
Cases receiving hospital treatment during 1957			48
Cases awaiting admission to hospital 31.12.57	telani.		25
X-ray examinations during 1957			64
Awaiting X-ray			
			47

# Number on Aftercare Register at 31.12.57.

Flat Foot	 	 			 334
T.B. Joints	 	 	ari	and the bas	 22
Injuries (including fractures)	 	 	10.00	0 24 5	12

								51
Poliomyelitis	0					 		308
Knock knees and bow	legs					 		51
Cerebral palsy						 		11
Other birth injuries						 		5
Torticollis						 		8
Spina bifida						 		4
Pseudocoxalgia						 		13
Perthes disease and con	xa vara					 		28
Congenital dislocation of	of the hip					 		
Congenital defects (inc	luding tal	ipes	and pes	cavus	)	 		111
Hallux valgus and de	formed to	oes				 		27
Other postural defects	of feet					 		78
Postural defects otherw	vise					 		99
Scoliosis, lordosis and	kyphosis					 		16
Achondroplasia	- , , , , , , , , , , , , , , , , , , ,					 		2
Muscular distrophy						 		3
Schlatter's disease						 		3
						 		1
Osteomyelitis			1.000.00	1.000		 		4
Arthritis, synovitis, rh						 		2
Slipped epiphysis						 01:00		35
Other conditions							-	
								1 000

1,228

# Speech Therapy

The Speech Therapists, Miss Stevenson and Mrs. Moss, submit the following report.

"Miss Chapman resigned in March, and Miss Stevenson was appointed in September this year. During the interim period clinics were held in Carlisle by Mrs. Latimer. Apart from this period, clinics have been held as usual in Carlisle, Maryport, Wigton, Aspatria, Penrith, Keswick, Workington, Whitehaven, Egremont, Millom and Cleator Moor. Following poor attendance at Whitehaven of patients living in the Mirehouse area, one session per week has been spent in the Valley Clinic, Mirehouse, since April. In view of the very long waiting list in Egremont it has been decided to devote more time to this clinic. We have included the number of children awaiting treatment at the end of the year, in this year's report. The effect of this waiting list means that some cases have to wait up to a year before they are seen but it is hoped that this period will be shortened once we have caught up with the backlog.

Attendance at the clinics fluctuates, but it is found that, when a school has been visited by one of the speech therapists for any reason, the attendance of children from that school becomes much more regular. The teachers are most helpful, and it is very unfortunate that time curtails the amount of school visiting possible. During the year, two Grundig tape recorders have been purchased and are now used in the clinics where they are proving a real asset. Patients are able to listen critically to their own speech, and check their progress. A record of interesting cases is preserved.

A pure tone audiometer is now available and we hope that its use by speech therapists may lead to earlier diagnosis and successful therapy for partially deaf children."

	On Register		(	On Register	Waiting
	1.1.57.	Discharged	Admitted	31.12.57.	List
West Cumberland	102	55	56	103	74
East Cumberland	69	30	56	95	73

# Particulars of Cases Discharged

	West Cumberland	East Cumberland
Normal	23	14
Greatly improved	10	6
Improved ) Unlikely to benefit from	6	3
Unimproved ) further treatment	4	_
Lack of co-operation	8	5
Transferred	4	2

### Cases Treated

					West Cumberland	East Cumberland
Dysalia					86	53
Stammer					35	35
Stammer and Dysa	alia				7	7
Sigmatism					13	3
Cleft Palate					7	5
Hard of Hearing					5	6
Dysarthria					3	2
Dyspraxia					1	turner stanting
Aphasia		blids.pd			india alli 1 coltant	The main i
Retarded speech		alam.et l			ni viliant min to ann	16
Excessive nasality		mon.les	In	M	Accessity _ The result	1
					endances at the Wes	the add mithe bollon
					158	129

				Attendances	Waiting List
Cleator Moor	 		·	239	8
Egremont	 and states	·		180	25
Millom	 			378	10
Whitehaven	 			732	14
Workington	 			661	22
Ingwell	 			217	Seeth Bornprits un
Penrith	 			117	14
Aspatria	 			95	- 2
Maryport	 Loisgub			74	13
Keswick	 			36	3
Wigton				162	5
Carlisle	 			307	33
	 			84	_
Higham	 			2.000	

Total Attendances-3,282

### **Child Guidance**

The following statistical table on the work of the Child Guidance Centres during 1957 indicates that the number of new cases referred during the year (79) remains at approximately the same level as during past years.

In my report for 1956 I commented at some length on the extreme difficulty which we, along with other authorities, have found in our frequent attempts to secure the services of a Psychiatric Social Worker. The West Cumberland clinics have not had the whole-time services of a Psychiatric Social Worker since January, 1955, and to some extent we were fortunate in having for just over a year at least the part-time services for four days a week of a Psychiatric Social Worker of considerable experience. For the ensuing year (February, 1956 to February 1957), the West Cumberland clinics had no social worker whatsoever, but in February of the year under review, Mrs. Coles was appointed as a part-time social worker (not specifically trained as a Psychiatric Social Worker) for the equivalent of two days per week.

The main function of the social worker in the child guidance team is to secure the co-operation of the family in treatment and to maintain this co-operation for so long as is necessary. The results of Mrs. Coles' efforts in this direction are reflected in the attendances at the West Cumberland clinics, psychiatric interviews at these clinics increasing by more than 50% during the year. It seems to me that our chances of filling the West Cumberland vacancy by the appointment of a whole-

time Psychiatric Social Worker are deteriorating rather than improving. We must, I suggest, be prepared to subsidise a student in her training for psychiatric social work under contract to remain in the service for at least a fixed period after qualification, and with the increasing emphasis on the domiciliary aspect of general mental health work, I think we shall also have to consider some form of subsidised training for general social workers in the field.

26								
	Total	169 38 13 13 13 13	3 6 254	44 204	6 254	477	290 36 8	368 121 24
RETURN FOR THE YEAR ENDED 31.12.57.	Millom Dr. Ferguson Miss Grey s Mrs. M. M. Coles (from 1.2.57.)	7 1 1 1	6	0	6	18	ω	12 5 2
FOR THE YEA	Whitehaven Dr. Ferguson d Miss Grey s Mrs. M. M. Coles (from 1.2.57.)	96 1 - 5 6 - 1 - 5 4	135	6 001	135	213	231 5 8	218 63 22
	Maryport W Dr. Ferguson Dr. F Mr. H. Blair Hood Miss Mrs. M. M. Coles Mrs. (from 1.2.57.) (froi	4 ∞011-	55	946	55	105	5 - 1	106 30 -
S-STATISTIC	Carlisle Dr. Stuart Dr. Mr. H. Blair Hood Mr. Miss M. Lamb Mrs (fr	22 5 23 23 25	- 1 4 55	26	55	141	44 1 1	- 33
CHILD GUIDANCE CENTRES-STATISTICAL	STAFF: Psycniatrist Educational Psychologist Psychiatric Social Worker	Cases remaining on Register at Jan. 1st, 1957 New cases referred during year by: Consultants or General Practitioners School Medical Officers Children's Officer Parents Schools	Probation Officers or Courts Others Cases re-opened during year	Cases dealt with and closed Cases remaining under treatment	31.12.57 Cases awaiting treatment at 31.12.57.	Interviews by Psychiatrists: (a) with child and/or parent	Interviews by Social Workers: (a) At home (b) At clinics (c) Others Interviews by Educational Psychologist:	<ul> <li>(a) Tests, play therapy, remedial teaching etc. with child</li> <li>(b) School visits</li> <li>(c) With parents at home or clinic</li> </ul>

### Handicapped Children

From time to time views are expressed on the emotional dangers of sending young children to residential special schools. A formal report by a school medical officer placing a child in one of the categories defined in the School Health Service and Handicapped Pupils Regulations 1953 is not lightly undertaken and a recommendation for special educational treatment is only made in cases where education by ordinary methods has been tried and it is clear that special methods or a special regime are of vital necessity to equip the handicapped child for his ultimate up-hill struggle for competitive employment. In spite of the fact that the opportunity is often stubbornly declined by parents and, notwithstanding the annual increase in the number of special school places available throughout the county as a whole, there are still pupils awaiting vacancies.

### Blind and Partially Sighted

With the advancing standards of care in infancy and childhood it is not surprising that blindness resulting from infectious diseases, particularly opthalmia neonatorum, is rapidly becoming a thing of the past. In spite of this there still remains the challenge to preventive medicine of the group of congenital conditions which includes cataract, optic atrophy, and the heterogeneous group of anomalies of dominant or recessive genetic determination. Medically the ultimate progress of the blind child must be dependent on early diagnosis and regular observation, while educationally the problem remains one of distinct differentiation between the child with some vision, however limited and the child who can only be educated by methods used for blind children. There must, however, be the proviso that the arrangements for special educational treatment be sufficiently elastic to allow a child whose vision deteriorates to change from partially sighted to blind methods with a minimum of disturbance. The changing outlook on the supervision of visual defects among children in ordinary schools is described by Dr. Patterson in another section of this report.

### Deaf and Partially Deaf.

In no other handicap is the value of early special school as incontrovertible as in the case of the child of two years and upwards with an extensive hearing loss. I have described elsewhere in this report the recent advances in the county in discovering deafness early and giving guidance and supervision to parents of deaf children. In deciding the important issue of removing a child of such tenders years from his parents I am indebted to Professor Ewing and his staff at the Department of Education of the Deaf, The University, Manchester, for giving the benefit of his wide experience and balanced judgment in this field to the parents of Cumberland children who, with the collaboration of the consultant otologists, are sent to his Unit in Manchester for assessment. As in all handicaps the quality of co-operation between doctors, teachers and parents may radically affect a child's progress. One partially deaf girl was considered to require education in a residential special school for educationally subnormal girls, her intellectual handicap being more marked than her hearing loss. The headmistress of the school noticed that her speech and general education were not progressing to her satisfaction and learned that the girl had no less than three hearing aids, none of which she understood how to use adequately. An interview was arranged with the consultant otologist at which the headmistress, the girl and her mother were present and given guidance as to the most suitable instrument and its day to day use in both term time and holidays. A member of the school staff accompanies this girl on subsequent visits to the otologist and a significant improvement in her achievements is reported.

Individual children with hearing defects present their own problems. A representation was received from the headmaster of a residential school for the deaf for the issue of the transistor type of hearing aid to two Cumberland boys in his school. It was clear that these boys would make greater progress with transistor aids, and as the need for this "special educational treatment" was clearly established sanction was given forthwith to the headmaster to have the boys fitted with these instruments through the usual sources. This facility may also be justified for a younger child and may, if used during the period when speech is being acquired, so affect the progress that the child can attend ordinary school. A girl who was referred to Professor Ewing's Unit before reaching the age of two years was fitted initially with a standard type of hearing aid. On reaching the age of two years the consultant otologist felt that as her future depended on the utilisation at this age of such rudiments of hearing as she had, a transistor hearing aid was of the utmost importance to her, and this was fitted. After her last attendance at the Unit at the end of the year she was reported as having made considerable progress. and in spite of showing no response in the right ear and only a response at the 80 decibel level in the left ear she could already, at the age of two years and two months, repeat several single words in a natural voice. With co-operative parents she has learned to watch automatically for speech and understands much of what is said to her. In between visits to Manchester she will receive supervision and guidance from the local clinic until a peripatetic teacher of the deaf, referred to earlier in this report, is appointed.

Another girl, who was seen by Professor Ewing at two years and eight months of age, was found to give no clear response to any sound stimuli. Regular attendance at the Unit, backed by intelligent support at home has now brought her to the stage, at two years and eleven months, where she enjoys wearing her hearing aid, discriminates several words and phrases, understands when helped by contextual clues, and is even attempting to say a few words imperfectly. Her supervision in between visits to Manchester will be carried out at the newly adapted premises in the Workington Clinic, where she will be seen by a medical officer and health visitor, both of whom have been on courses in Manchester, until she takes up the vacancy in a residential school for the deaf offered to her for the summer term, 1958.

The importance of parental support is not merely a fashionable hypothesis, as is shown by the case of another girl. In spite of normal intelligence and considerable residual capacity for hearing when seen at Professor Ewing's Unit at the age of four years, it is disappointing to report that she appears to have made no progress with regard to speech, and is clearly not yet using her hearing aid correctly in spite of instruction, and no improvement is anticipated until she can be admitted to the residential school for the deaf on whose waiting list her name has been placed.

The dangers of independent action by parents are shown in the case of a profoundly deaf two-year old boy, who, when seen by Professor Ewing, could only hear sounds 90 decibels above normal threshold. A type of hearing aid, agreed by Professor Ewing and the consultant otologist, was supplied, and an appointment made for the child to return to Manchester for guidance in its use. Unfortunately the parents felt the weather and the distance to Manchester made it impossible to keep this appointment, and arranged to have the boy fitted by private arrangement through a local supplier and at considerable personal expense with a hearing aid of a different type from that considered most suitable to the boy's handicap.

### Educationally Sub-normal

The special residential school for educationally sub-normal boys at Ingwell, Moor Row, which was opened in September, 1953, with a total bed provision of 41 places, now has accommodation for 57 pupils. By the end of 1957, 79 boys had been admitted since the opening date, 17 left on attaining the special school leaving age of 16 years, 3 were withdrawn having been found after a trial period to be unsuitable for education in a special school of this type, 3 were withdrawn by their parents, 2 left the county with their families to live elsewhere, 1 boy was committed to an approved school, and 1 pupil died, leaving 52 on the register at the close of the year. Of this total, 5 pupils came from the City of Carlisle and 6 from Westmorland.

The residential special school at Higham, near Cockermouth, for educationally sub-normal girls was opened in April, 1956, and provides accommodation for 38 pupils, of which 6 places are allocated for the use of Carlisle and Westmorland Education Authorities. At the time of writing, no pupils had been withdrawn for any reason and none reach the special school leaving age until the end of the summer term, 1958.

We look forward to the Education Committee's proposal at some later stage to increase the accommodation at this school to enable the admission of a limited number of educationally sub-normal children of both sexes under the age of nine years; this up to now has been the lower age limit for entry to the County's special schools.

There seems to be increasing difficulty in placing pupils who suffer from more than one form of handicap in suitable special schools. It is regrettable I think that, particularly as it concerns residential special schools, the tendency is to specialise in the education of children suffering from one particular disability. This too often means that a child with two handicaps is not accepted for admission to a school catering for either of the handicaps because of the presence of another disability. To quote but one example, a girl was recommended for special educational treatment in a residential school for partially sighted pupils who were also educationally sub-normal as long ago as September, 1955, when the need for this specialised form of educational provision was considered to be a matter of urgency. In spite of continuous efforts to find accommodation in a suitable school for more than two years, it has not yet been possible to provide the special educational facilities which she so urgently requires.

# 2 H.P. EXAMINATIONS COMPLETED IN 1957

Under	Section 34.					0
	Recommended Special School - E.S.N.					28
	do. – Maladjusted					1
	do. – E.S.N. and	Malad	ljusted			1
	do. – E.S.N. and				oped	1
	Recommended Special Class (E.S.N.)					7
						6
	sauton for 57 papers. By the end of 1067, 7					_
						44
Under	Section 57.					
	Reported as ineducable (Section 57(3))					11
	Reported as requiring supervision on leaving so	chool	(Sectio	on 57(5)	))	13
	Decision as to educability deferred					5
	Not requiring supervision on leaving school					6
	Not requiring super more					- 1
						35

# NEW CASES REFERRED IN 1957

Autoria and had dente	Referred for investigation			
Referred by	of intellectual capacity	behaviour disorders	possibly ineducable	Total
School Medical Officers	45	29	5	79
Psychologists and Teachers	54	22	orino Viendialia	76

	-31			
Consultants and Hospitals	6	5	2	13
Family Doctors	5	28	3	36
Children's Officer	13	9	nee vie chast	22
Probation Officer	2	2	Manna od I	4
Parents	bourse-but uso	2	auton and fail	2
Others	19	11	15	45
	144	109		o hered
	144	108	25	277
F 11	a literest of O		NO CONTRACTOR	northered on

### Epilepsy

The fact that the need for special school places for epileptic children is less than originally anticipated, being under 1,000 places for the whole country, is indeed encouraging. An observant class teacher can do much to help towards earlier ascertainment and greater accuracy in diagnosis can be obtained locally by access to facilities for electroencephalography at Garlands Hospital on the recommendation of consultant physicians. Supervision by the family doctor of the administration of the modern anti-convulsants, backed by support from parent and teacher, with overall co-ordination by the school medical officer are all directed to ensuring that, wherever possible, epileptic children attend ordinary school "without detriment to themselves or other pupils". Where a special school is necessary a major objective is achieved if, as a result of such special educational treatment, a child is enabled to return to an ordinary school.

# Physically Handicapped Pupils

When it becomes clear, beyond all doubt, that a school child "cannot without detriment to his health or educational development be satisfactorily educated under the normal regime of ordinary schools" the provision of special educational treatment becomes a statutory necessity. Attention to the need for education of children while in hospital was drawn to local education authorities and hospital authorities in memoranda from the Ministries of Education and Health in September, 1956. A number of Cumberland orthopaedic cases have derived considerable benefit from the educational facilities at the Ethel Hedley Hospital and there is a suggestion that a large hospital in Northumberland will be able to provide hospital special school places for children suffering from bronchiectasis, chronic bronchitis, congenital heart conditions, and certain renal conditions. Fully ambulant children in this category are, meantime, scattered throughout the country as described in the table on page 42 and often distance provokes a logical criticism from parents. Against the full curriculum of the special school, however, the provision of home tuition to the maximum of six one-hour periods in any week cannot attempt to provide an alternative to growing up among children of similar aptitude. The contribution of the schemes for spastics and orthopaedic cases are described elsewhere in this report.

### Delicate Pupils

An example of the benefits of hospital special school regime for children with low resistance to chest and skin infections is given by the case of an educationally sub-normal boy from West Cumberland. In spite of the untiring efforts of headmaster, matron and family doctor, repeated periods of poor health were depriving him of many of the benefits of the special school curriculum and a vacancy was offered him in a hospital special school. Here intensive treatment was instituted and after several months in a balcony bed be became fully ambulant and able to receive education. He is now fit for discharge to return to the special school best suited to the educational requirements of his predominating handicap of educational subnormality. The extension of facilities in Northumberland for similar children from the county is referred to in the section on physically handicapped pupils.

# Children Suffering from Cerebral Palsy.

The number of children known to be suffering from cerebral palsy in Cumberland as at 31st December, 1957, is as follows:—

Number of spastic children of school age — West Cumberland East Cumberland		=	47 19
Total in Cumber	and	=	66
These may be divided into those:			
(a) Attending ordinary school		=	36
(b) At the Percy Hedley School for Spastics (Newcastle)		=	4
(c) At residential schools for the physically handicapped		=	1
(d) At residential schools for the educationally sub-normal		=	1
(e) Attending occupation centre		=	3
(f) At Dovenby Hospital		=	3
(g) Ineducable children not included in (e) (d) (f)		=	5
(h) Having home tuition		=	5
(1 awaiting admission to Percy Hedley School)			
(i) Not attending school, not having home tuition		=	8
(1 awaiting admission to Irton Hall, Holmrook			
2 awaiting admission to occupation centres			
1 awaiting admission to Dovenby Hospital			
2 awaiting 2 H.P. examination			
2 awaiting final assessment).			
In addition: —		aurei	2.90

Number of children under school age, but within the scope of the Education Act 1944 (i.e. 2 - 5 years of age).

(a) Known spastics—					
West Cumberland			 =	11	
East Cumberland			=		
Total in Cumberland	-	v	 =	16	
(b) Under observation or investig	zation-	albba a			
West Cumberland		Landiba	 =	5	
East Cumberland			 =	4	
Total in Cumberland	dr:to a	7101 TO	 =	9	

I commented in the report for 1956 on the very satisfactory liaison which has developed between the county health department and the Percy Hedley School for Spastics in Newcastle-upon-Tyne. Dr. Ellis, the Director of that school, visits Cumberland from time to time to assess the condition of certain spastic children referred to him. The principal physiotherapist on his staff attends these clinics with him and as a development of the service in the coming year she will make additional visits to offer guidance to parents in the correct exercises and also to assist the County Council's physiotherapists in their work for spastics. As in previous years, a number of children from Cumberland have been admitted with their parents for a period of in-patient assessment at the Percy Hedley School

In 1956, the orthopaedic physiotherapists attended a course in Newcastle where they studied the techniques of physiotherapy adopted there for this type of handicapped child, and an assistant county medical officer who has a special interest in spastics also received specialised training.

Fortnightly clinic sessions were started at Workington Park Lane clinic for children suffering from cerebral palsy. During 1957 the fortnightly clinic for handicapped children in Workington has been mainly concerned with the assessment, study and guidance of spastic children, although as its name implies the ultimate function of this clinic will not be limited to this group of children. The aim of this clinic is to provide a continuous service for the spastic and physically handicapped child, and it is hoped that similar clinics will develop shortly in other parts of the county. Children in whom any physical abnormality or defect of development is found, should be referred to the handicapped children's clinic as early in life as possible. This implies very early recognition by health visitors, midwives and district nurses and that the clinic should gain the confidence of the general practitioners. When such a child is referred, careful assessment is followed by guidance of the mother on the management of the child with particular reference to difficulties physical, emotional, social or educational which she is likely to encounter. The ultimate object must be to keep as many children as possible in the normal home environment, and as many as are capable in the usual educational streams.

The great bulk of cases of physical and mental handicap present as a delayed arrival at the developmental milestones. Minor delays are usually best treated at child welfare centres, whose function is becoming more that of a child development clinic, but the more serious should be directed to handicapped children's clinics where developmental progress can be studied and the social and educational needs assessed. In this way in addition to helping individual children to a happy and as far as possible, independent life, a fuller picture of physical defect in the county should be obtained.

Dr. Regester the medical officer who attends the clinic has also seen and studied spastic children in other parts of the county at clinics and in their homes, and I set out below his report of the study he has made of socio-medical aspects of cerebral palsy in Cumberland in 1957.

#### "Incidence as compared with other surveys:

Taking the confirmed cases in the 2-4 age group as being 16 (taking no account of 9 children under observation) and the mid-1957 population of that age group as being 10,500, the prevalence was found to be—

2-4 years=1.5 per 1,000 population.

Taking the confirmed cases in the 5-16 age group as being 66 and the mid-1957 population of that age group as being 39,000 the prevalence was found to be—

5-15 years=1.7 per 1.000 population.

Comparable figures for other localities in England and Wales are:-

Birmingham	(1949) = 1.0	per	1 000	population	(5-14)
Liverpool	(1950) = 1.3	per	1 000	population	(5-14)
Bristol	(1953) = 2.2	per	1 000	population	(5-14)
Cardiff	(1955) = 1.9				
London	(1956)=1.18	per	1,000	population	(5-14)

(Unfortunately complete figures from other Administrative Counties are not readily available).

The above figures are from published papers by the following:-

Birmingham (1949)=Ascher and Schonell (1950)Liverpool(1950)=Ella B. Floyer (1951)Bristol(1953)=Smallwood (1954)Cardiff(1955)=Foster, Guy Jones (1956)London(1956)=MacGregor, Pirrie, Shaddick (1957)

### Type of Cerebral Palsy:

Out of 71 children with cerebral palsy coming under the observation of the health department through any of its services, 58 were in the spastic group, 5 were in the athetoid group, 4 in the ataxic group and 4 in the mixed group. The spastic group may be further subdivided into those with one limb affected (6); those

with one half (left or right) of the body affected (24); those with both legs affected (17); those with all four limbs affected (9); those with 3 limbs affected (2).

Birmingham	Liverpool	Bristol	Cardiff	London	Cumberland
$\begin{array}{c} \\ 29.0 \\ 26.0 \\ ) \\ 26.0 \\ ) \\ 27.0 \\ 10.0 \\ 1.0 \\ 5.0 \\ \end{array}$	86.3 13.1 0.6 (included under spastic)	47.8 8.3 29.7 6.6 5.0	5.5 ) 36.3 ) 15.4 ) 34.0 ) 2.2 ) 6.6 —	66.9 8.0 6.4 10.8	8.5 33.8 24.0 12.7 2.8 7.0 5.6 5.6 5.6
			$\begin{array}{c} - \\ 29.0 \\ 26.0 \\ ) \\ 26.0 \\ ) \\ 26.0 \\ ) \\ 26.0 \\ ) \\ 26.3 \\ 86.3 \\ 8.3 \\ 29.7 \\ - \\ 10.0 \\ 13.1 \\ 6.6 \\ 1.0 \\ 0.6 \\ 5.0 \\ (included - \\ under \\ - \\ under \\ \end{array}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

A Comparison with other Surveys (percentage incidence)

#### Associated defects:

It is the presence of multiple defects which makes the treatment of the spastic, whether it be medical, social or educational, so difficult. Such multiple handicap tends to occur frequently amongst the cerebral palsied. There are few special schools or residential homes that take such children, and still fewer units for assessment, which makes the problem all the more pressing. Mental defect is a common finding; 21 of the county's 66 spastic children (aged 5-15) are under the observation of the mental health section, as having intellectual capacities well below the normal. Of these, 14 definitely come within the category of ineducability. Speech defects, ranging in all degrees through retardation, dysarthria, dysalia and aphasia, occur in 32% of all these children. Squint occurs in 8% of cases. Deafness is difficult to assess by clinical means, but routine pure tone audiometry can be expected to help in this respect. Epilepsy seems to occur in 10% of the cerebral palsied, a rather lower incidence than has been recorded for other areas.

### Birth History:

The birth histories of 35 children were available for study. Eight of these were first children, and 2 had a position in the family of 7th and 8th. The maternal age at birth of these children tended to be higher than is usual among the general population.

Under 20	 	 	=	1
20-24	 	 	=	8
25-29	 	 	=	5
30-34	 	 	-	9

	35-39	n .i.ed	 (1=h	10	
	Over 40		 =	2	
rth Factors:					
Of the 35	known histories of labor	ur:—			
	Precipitate labour		 =	1	
	Prolonged labour		 -	3	
			 =	1	
	Disproportion				
	Breech presentation		 ( =)	1	
	Twin birth		 =	5	
	Rhesus incompatibility		 =	3	
	Prematurity		 =	9	
	Toxoplasmosis		 =	1	
	Apparently normal lab	our	 =	11	
			_		
				35	
elivery:					
	At home by midwife		 =	9	
	At home by doctor		 =	4	
	At nursing home		 =	2	
	A . 1		=	17	
	At hospital	in a superior	211 1	100	
			ainob	32	
				54	

In general, it may be taken that faulty obstetric practice accounts for less than 3% of cases throughout England and Wales. However, birth factors are important in about 60% of cases, although there is a large group in which the aetiology is unknown. That the preponderance of cases are found in this area to have been delivered in hospital is merely a reflection of the two features, the high maternal age, and the 65% incidence of abnormal deliveries. Again some 26% of the group were first-born. All these factors are likely to have led to hospitalisation.

### Causes of cerebral palsy:

Bi

D

About half of the cases were associated with prematurity (9), twin birth (3) and rhesus incompatibility which are well known to be direct or contributory factors in the causation of this condition. Four of the children examined were of the acquired type of cerebral palsy; 1 due to post vaccinal encephalitis; 1 due to encephalitis of unknown aetiology; 2 due to meningitis. (It was decided that the plasmodial infection, toxoplasmosis, was congenital).

Age of diagnosis:

Under 6 months	 	=	nil
6 months—11 months	 	=	10
12 months—17 months	 	=	7

18 months-24 mont	hs	0.00	=	7
Over 2 years	he of the	0.122.04	=	15

(Three of the children-aged 18 months, 2 years, 3 years-at the time of the first interview had not been definitely labelled as "spastic" and their parents had never been informed of the possibility).

It is probably not possible to diagnose cerebral palsy with any certainty before the age of 9 months. The average age throughout the country seems to have been 2 years for cases of hemiplegia and rather later for other types. It has been said that 15% of cerebral palsied infants die in the first year of life, but until early diagnosis becomes common it is difficult to verify this assertion either in Cumberland or elsewhere.

The age of diagnosis given above refers to the first intimation of it to the parent by a medical practitioner, whether in general or specialist practice. This may well include a time-lag between the doctor's own mental awareness of the diagnosis and his statement of it, there being a natural reluctance on the part of the profession to alarm the parent until the diagnosis is inescapable and undeniable. However it is a fact that in the majority of cases the mother of a baby between 6 months and 18 months begins to notice that her child is not sitting up, not standing, not talking, not walking. These missed milestones of development account for about 45% of the abnormalities first drawing the parents' attention. The failure to make use of one or two limbs or difficulty in swallowing or in taking solid foods are the next two common causes for her seeking advice, and with growing anxiety she awaits a diagnosis. This, when forthcoming, should be unequivocal, concealing nothing, but also accompanied by a clear explanation of the nature of the condition. The flame of hope should not be fed unwisely nor any glowing ember quite extinguished.

# The Development of the Cerebral Palsied Child:

As far as most of the infantile reflexes of the first six months of life are concerned, there is little difference between the normal child and the spastic a fact which makes early diagnosis extremely difficult. Spastic children do frequently show difficulty in suckling and swallowing, or are able to do so only after a little delay. This delay is apparent throughout his progress to a variable extent. All babies and young children go through critical periods—on the physical side when voluntary movement is taking over from the automatic activity of the first months: when they are ready to sit up, to crawl, to stand, to walk; when they are interested in, or imitative of, speech sounds, and then when vision and the hunger for sensations develop, on the social side when they are able to develop their instincts or are resilient and independent enough to have them frustrated so that they grow into new patterns of behaviour. In the spastic these critical periods are in the same order but extended. It is difficult to make mothers realise this, but it is one of the important points on which guidance is given at the handicapped children's clinic. The effort is to inculcate patience and to help her understand that it is of no advantage to encourage in her child certain skills (like walking)—if the mode of progress or the patterns of movement are grossly abnormal. A number of the children in the group were indulged rather too much, which is not conducive to the proper mental and emotional growth, and gentle weaning of this is advised.

In no case was the opposite—rejection of the handicapped child—observed. In two families it did appear that some other children in the family were receiving less love and care than they had the right to expect, but certainly no gross emotional deprivation was present.

It becomes apparent on closer study that one cannot consider the spastic child in isolation. Any investigation must be concerned with an individual child with cerebral palsy, a family with such a child as part of it, and the physical and social milieu in which they all dwell.

#### The Role of the Mother:

What development the spastic child (and to a less extent the mentally handicapped child) makes, is due to maternal care, maternal affection, capable and selfless motherhood. In this county of Cumberland there are excellent examples. The doctors, the physiotherapists, the speech therapists, the specialist teachers, the home tutors, the whole team can do nothing without the co-operation of the ubiquitous "mum". However, there is a limit to her indefatigability. One aspect of this study was to enquire into the time-burden and economic burden laid upon the mother and housewife. To have the care of a spastic child is a considerable burden on domestic finances; the toe-uppers of a new pair of shoes in one case were worn out in 2-3 weeks, the elbows of garments are soon rubbed into holes in those cases who remain at the crawling stage for several years; the clothes get dirtier and messy more often and constant washing means quicker wear. Then there is the necessity for specially adapted furniture, for prams and push chairs. More heating is required in the house for a non-ambulant child. Trips and outings and shopping expeditions which are taken with little preparation and a light heart by other families, are a major undertaking with a child who cannot walk, or feed himself or control his excretions, but who is eight years old and no light weight. Frequently transport creates extra costs. Some families feel tempted to make considerable sacrifices to buy a second hand car in order to solve these perennial problems. Most families in Cumberland manage remarkably well, but in other cases the burden is just tolerable. Widowhood, an invalid husband, three or more children, put several families into the latter category.

It is the time-burden which needs remedy in a greater number of instances. The factors which weigh it more heavily are the presence of one or more other children of below school age, a new baby, an invalid husband, sickness in the family, and lastly lack of father-mother co-operation which is mentioned below. There is no mother of a seriously crippled spastic or other physically handicapped or grossly retarded child who would not welcome alleviation at some time. Happily the means of doing so are gradually being increased by both official and voluntary agencies. There is available short-term care in institutions, the home-help service, and holiday homes for spastics. (There are of course residential homes and schools but the great majority of spastic children spend their childhood without ever attending them, and they do not solve this basic problem). One could think of no greater service to these mothers than a home-nursing service for handicapped children. To any voluntary body which organised such a service, an immense task, would be all honour.

### The Role of the Father:

Any child requires a secure environment to develop to his full capacity. The cerebral palsied child even more so. Within himself there is so much which is unstable, uncertain and without control. His physical condition deteriorates if he is upset, or nervous or unsure of persons or surroundings, and his psychological states react adversely to over-stimulation. The father is the symbol of the solidarity of the family (although the mother begets it and nurtures it). The Victorian conception of fatherhood as being just the symbol, the figurehead of the family, in splendid isolation and scornful of housewifery, is nowadays much of a social anachronism.

There is no doubt that, whatever role the father has in bringing up the normal child, in relation to the spastic the day to day attentions of the father to the child, good mother-father co-operation, and realistic thinking from both parents is of paramount importance. The "spastic situation" lacks the tenseness, the mother is prepared to make the extra efforts, and mother guidance is easier. The father is full of ideas and will adapt a pilot's cockpit for a special seat, will construct special furniture or commode, or make a "jeep" as an aid to physiotherapy.

### Miscellaneous Matters:

#### (a) Housing:

The needs of the spastic's family in the matters of housing are twofold. First for a house embodying the facilities expected in a modern community. In this all but two of the families seemed reasonably well provided when one considers the housing shortages (5 of the group occupied council houses). (One family was under order to quit through the Rent Act, 1957). Secondly for a house suited to the needs of the spastic. Briefly these are: no flight of front steps, a broad streetdoor and wide passages with no awkward corners or angles, no steps leading from room to room; well-lit, wide stairs between floors; a toilet with a good area, and on the ground floor; a bathroom big enough to be adapted to the spastic's disability, and lastly a house which is not difficult to clean with an easily run kitchen. By these considerations, probably not more than 6 houses would be fully adequate. Some of the housing authorities in the area do, however, have special housing accommodation for the handicapped. Two of the families (in addition to the 2 above) were living in houses definitely unsuitable.

### (b) Spastics going to ordinary schools:

Serious thought has to be given to the problem whether this child or that is suitable for ordinary school, and it is by no means easy. Teachers should be advised on all points concerning the child's disability, personality, and possible bars to progress. A start has been made in this direction, as it is intended that prior to admission of a spastic child to an ordinary school, a medical officer in the company of the parents, and on occasion with the educational psychologist, will meet the teacher to confer on the child's educational needs and abilities. For it is not merely a question of rough and tumble, there is also the child's fear of failure, fear of appearing foolish, as well as other specific mental incapacities.

### (c) A family problem:

Four of the cases were only children, and it was found in 3 of them a reluctance to add to their family. Reassurance had done nothing to clear their minds of the haunting fear that another child would be affected. In 4 other cases the spastic was the last born. Of these, one due to age was unable to increase her family. It would be enlightening to study with more care whether the birth of a child afflicted with cerebral palsy had any positive deterrent effect on further child-bearing.

### (d) Parental anxiety:

The full impact of the diagnosis of severe cerebral palsy comes to parents slowly with the years. A period of self-deceit and wishful thinking gives way to a realistic approach in about three-quarters of the cases. Some can never completely divest themselves of their disbelief of the diagnosis. Happily it does not induce in most of them passivity and non-co-operation, but rather on the contrary inclines them to seize too eagerly on the advice and guidance of any new doctor or any treatment never before tried. All parents however face the anguish of the truth when school age is reached and it becomes apparent that their child's capacities do not fit him for ordinary school, and in some tragic cases for any school. To circumvent this outcome in even one child is a worthy and satisfying object of any service.

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7	r	2		

# Table Showing Handicapped Children in Special Schools

BLIND		
Name of School	Boys	Girls
Royal Normal College for the Blind, Shrewsbury	3	-
Sunshine House, Southerndown	-	1
Royal Victoria School for the Blind, Newcastle	-	1
Total	3	2
PARTIALLY SIGHTED Name of School	tating u	nalema.
School for Partially Sighted, Preston	Boys 5	Girls –
Total	5	
DEAF	Relation Martin	Treffective
Northern Counties School for the Deef and Deel Northern	Boys	Girls
Northern Counties School for the Deaf and Dumb, Newcastle Royal College for the Deaf, Preston	-	2
Boston Spa Institution for the Deaf	2	-
Royal Residential School for the Deaf, Manchester	1	2 2
Burwood Park School, Walton on Thames	1	-
Total	4	6
PARTIALLY DEAF	Name o	
Name of School	Boys	Girls
Northern Counties School for the Deaf and Dumb, Newcastle	1	2999
Liverpool School for the Partially Deaf, Southport	1	2×-22
Total	2	-
EDUCATIONALLY SUB-NORMAL		P.D.P.D.L.P.
Name of School	Boys	Girls
Salmon Cross School, Helmbury, St. Mary	2012,247	1
St Francis Residential School, Birmingham Ian Tetley Memorial Hospital Home, Killinghall	2	3
Ingwell Residential School, Moor Row	1	14 T
Higham Residential School, Cockermouth	49 -	29
Total	52	33

EPILEPTIC		
Name of School	Boys	Girls
Lingfield Epileptic Colony	-	1
Sedgewick House School, Kendal	2	-
Total	2	Surshin
School for the Blind Newsaula	alantis V	Isras!
MALADJUSTED		
Name of School	Boys	Girls
Chaigeley School for Maladjusted Boys	1	-
Tratel	Name	
Total	for fait	School
PHYSICALLY HANDICAPPED	n fran bonn	na ka
Name of School	Boys	Girls
Hesley Hall School for Physically Handicapped, Doncaster	1	
Heritage Craft School for Physically Handicapped, Chailey	a breakte	1
Percy Hedley School for Spastic Children, Newcastle	2	2
H. K. Campbell School, Carlisle (day school)	1	15-301
Irton Hall	ope Lose	00-00
W. J. Sanderson Hospital, Gosforth	a and h	and mark
Total	6	3
Tabolt states and a state of the state of th	the case	the second
DELICATE		
Name of School	Boys	Girls
Fir Bank Hostel for Diabetics, Frodsham	1	-
Children's Convalescent Home, West Kirby	1	A manual
Redworth Hall School	Ica	and the series
Total	3	1

### **Dental Service**

The Principal Dental Officer makes the following comments on the dental service for 1957:-

The staff position during the year did not change as regards dental officers. Mr. Lamond's service being still further extended. One dental attendant, Miss Dodds, left on the 21st May, 1957, and was replaced by Miss Benson, who took up duty on the 21st June, 1957. Under present conditions in the profession this may be considered good compared to the rest of the country, but is not sufficient to allow as full development of the service as is desirable. There is no doubt that the shortage of dentists is becoming a serious national problem, not only in the local authority service, but also in the health service, where at the present time patients frequently have to wait some weeks for appointments. What the position will be if many of the older members retire after July, 1958, as seems probable, it is difficult to visualise, but there is no doubt that the shortage will be acute.

This raises the question of preventive measures and these come under two main heads, dental health propaganda and fluoridation of water supplies.

As regards the first, it is difficult to decide whether the time of the dental officers is better spent on practical work at the chairside or in talking to persons on how best to avoid occupying that same chair. Were there no staffing problems, the decision would be easy and propaganda would thrive and might do some good too, but under present conditions it takes a lot of courage to embark on what, at best, must be a very long term policy.

On the other hand, there is no doubt that fluoridation has much to commend it, not the least being the small initial outlay and subsequent cost involved. In four study areas the actual expenditure averages something below 6d. per head per annum. This leaves the matter to be decided on the question of results-good or bad. Much has been said against fluoridation on account of the damage it may do to the persons concerned, but the many carefully controlled tests have fully demonstrated that there is no harm to individuals where the proportion is kept below 1 part per 1,000,000, which is adequate to provide additional resistance to dental decay. Like all preventive measures in public health, fluoridation has its opponents who bring forward various dangers which attach to it, but fail to produce any tangible evidence to support their theories, in the same way as their forerunners with regard to smallpox vaccinations, who published vivid pictures of the possible results in individuals. In view of the extent to which fluoridation is employed in the United States, where "it is now an accepted Public Health measure and is in operation in 1,487 communities with a total population of over 30 million" \* it is surely time for a definite move to be made in Britain where the dental problem is certainly just as pressing.

Reliable statistics suggest a caries reduction in deciduous teeth of approximately 50% with similar results for permanent teeth in the younger age groups (it is too early to give definite figures for older age groups).

Last year reference was made to the appointment of an orthodontist by the Newcastle-on-Tyne Regional Hospital Board. This consultant, Mr. Roberts, commenced work in the area in April, 1957, using the County Clinic in Carlisle as a temporary measure pending the completion of new premises at the City General Hospital. This has proved a very happy arrangement, as it has brought the county staff into close contact with the specialist, resulting in far better liaison than would

\* Report of Ministry of Health for 1956, Part I, page 74.

have been possible otherwise. For the present Mr. Roberts has taken over all the orthodontic cases, except those who are unable to attend his clinics at Carlisle or Workington, but as his volume of work in the area increases the more simple cases will again be treated by the county staff, but under his direction. For this reason the orthodontic figures shown in the table (Appendix A, Table V) are incomplete.

The other totals of work done show a slight drop, which is accounted for by the severe dislocation of clinics by the influenza epidemic. While most of the staff were off duty for varying periods, a far more serious feature was the number of appointments not kept, in fact at some sessions practically no children attended and, of course, this affected almost the whole county.

# PREVENTION OF ILLNESS AND PROMOTION OF HEALTH

# Protection of School Children against Tuberculosis

### Mass Miniature Radiography

Mass miniature radiography is offered to all school children (including those attending private schools) over the age of 13 years, in the county. In 1955 and 1956, with the co-operation of the Director of the Mass Miniature Radiography Unit, it was possible to arrange for these examinations to be carried out before the B.C.G. vaccination programme commenced in each area. I show below the findings at mass radiography as far as the 5,501 school children involved are concerned, and separately the results of mass radiography in the children born 1943 i.e. those involved in the B.C.G. scheme.

5,501
151
32
5
32
4
diama
3
3,165
2,315
2,323
2,240
70
48

It has been suggested in a recent report from the Medical Research Council that it would be desirable to X-ray children whose Mantoux tests are found to be very strongly positive. In fact the Cumberland scheme by providing mass X-ray before B.C.G. vaccination already provides a more extensive scheme, and the only modification necessary is to refer those few children whose parents did not consent to mass radiography and who were found to be strongly positive on the reading of the Mantoux test for X-ray. X-ray examination is not made a condition for acceptance on the list for Mantoux testing and B.C.G. if found to be indicated.

#### B.C.G. Vaccination

Mantoux testing, mass radiography, and B.C.G. vaccination where necessary, were offered to all school children in their fourteenth year, attending maintained schools in the county, in 1955 and again in 1956. The procedure was fully described in the annual report for 1955. In 1957 as a result of the finding that in the first two years of the scheme virtually 100% of these children showed tuberculin conversion, the conversion test was discontinued and the post-vaccination tests postponed until the following year when it can be carried out at the same time as the prevaccination test for the next year age group. At the same time the offer was extended to include all children in the same age group attending private schools in the county.

In 1957 explanatory letters were sent to the parents of 3,165 children (2,890), and the acceptance rate was 73% (76%) which, bearing in mind that some of the non-acceptors would have had B.C.G. vaccination under the contact scheme, may be considered a reasonably satisfactory response, and I believe is rather higher than that found generally in the country. Tests were actually completed on 2,276 (2,142) children, which represents 72% (74%) of the school child population in respect of whom the offer was made. Of these 697, (755) gave a positive reaction, showing that they had at some time been exposed to tuberculosis infection. The percentage positive was 30.6% (35.3%). Of the 1,570 (1,387) negative children 1,566 (1,386) were given B.C.G. vaccination.

Note: figures in parentheses refer to the year 1956.

### Tuberculin Sensitivity of School Entrants

In the autumn of 1954 a tuberculin test was offered to every child entering school in selected areas in the county. Tests were completed on 3,003 of the 4,279 children in respect of whom the offer had been made.

	Selecte	d Area	mlä			Test No. Completed	No. Positive	% Positive
Workington						686	42	6.1
Maryport						400	43	10.8
Whitehaven						665	77	11.6
Frizington/C	leator	Moor/	Egrem	ont		450	75	16.7
Total, West	Cumbe	erland		tobe	banol	2,201	237	10.8

Silloth			· · · · ·	·····	 87	. 3	3.5
Aspatria					 86	4	4,6
Wigton					 117	6	5.1
Longtown					 83	5	6.0
Penrith	1			brind 1	 274	21	7.7
Brampton					 57	6	10.5
Keswick					 98	12	12.2
Total, East (	Cumbe	rland			 802	57	7.1
Grand Total					 3,003	294	9.8

47

Of these 3,003 children, 294 (9.8%) gave a positive reaction showing that they had at some time been exposed to tuberculous infection.

The names of these "positive" children were notified to the general practitioners concerned and approval sought to refer them to the consultant chest physicians (in no case was approval withheld). The chest physicians have conducted a long and intensive search for the sources of infection and the results of this investigation are now available.

Twelve of the "positive" children were found to suffer from tuberculosis in an active form, 119 were found to be inactive cases of the disease and the remainder showed no clinical evidence of tuberculosis. Of the contacts, 105 were traced to known notified cases of tuberculosis and 5 new adult cases of active tuberculosis were discovered i.e. 1 for every 600 tuberculin tests carried out. These figures again emphasise the need for more intensive local surveys of tuberculin sensitivity among school entrants. Dr. Dobson reports on a small survey of this type which he has undertaken in the Egremont Area:—

"It was decided to make a pilot survey of six schools in and near Egremont, as the Egremont Chest Clinic would make a convenient centre for examination of the positive reactors and their family contacts. Consent forms were sent to the parents of the 146 children admitted in the education year 1955-56, to reception classes in the six schools. All the forms were returned but in 14 (9.6%) cases, the offer was refused. It was not intended to test those known to have been Mantoux positive previously, or those who had had B.C.G. There were 17 such cases excluded from testing; the tests revealed another 4 whose parents had failed to disclose previous attendance at the Chest Clinic. (In the statistical summary these 4, all B.C.G. converts, have been regarded as not having been tested in this survey, and are shown for simplicity in the group "Attended Chest Clinic." There were thus 21 children who were known Mantoux positives prior to the survey. These are included in the "investigated group", the remainder of the group comprising 100 who were tested for the first time. Some for whom consent had been given were absent or had

left the district, 11 were missed in this way. The 100 tests were read personally and 2 new reactors found. The material used was P.P.D. in a strength of 10 T.U.

The Mantoux state of the group was found to be as shown in the table.

	Mantoux Natural conversion	positive by B.C.G. Vaccination	Mantoux Negative	Total Investigated
Attended Chest Clinic	3	18	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	21
Newly found in survey	2	_	98	100
Totals:	5	18	98	121
	(4%)	(15%)	(81%)	(100%)

Of the 23 reactors 18 were Mantoux positive as a result of B.C.G. vaccination. This is 78% whereas the 1954 survey of West Cumberland school entrants revealed only 12% so converted. A small group such as that now investigated cannot be compared with the 2,200 children surveyed in West Cumberland in the 1954 survey, nevertheless the contrast is sufficiently marked to suggest that in the intervening three years the contact investigation scheme has been pursuing the right group. The Mantoux positive and potentially Mantoux positive (contacts of cases) have been detected to such an extent that only 2% new reactors remained to be found. Reactors among West Cumberland school entrants who had not had B.C.G. numbered 9.5% in 1954, and the present investigation is proportionately less fruitful. It is important to examine the new reactors; of the two examined by the chest physician, one showed no clinical abnormality but the X-ray of the other revealed a primary complex. The latter in consequence will be kept under observation as long as necessary. The family contacts were examined, but no new cases found. There is nothing new in these procedures but they are a reminder of the value of preventive medicine and of the many ways in which tuberculosis is being brought under control.

In this survey the percentage of newly discovered reactors is negligible, but it does not follow that the results are of no consequence. If these results are typical it can be concluded

- (a) that a substantially increased proportion of the tuberculous population, has come under the surveillance of the chest physicians in the past three years.
- (b) that as an index of the incidence of tuberculous infection the tuberculin test is rapidly losing its value in the Egremont area.

(c) that the selective application of B.C.G. vaccination to children through the contact scheme, accounting for 15% out of the 19% tuberculin positive five year-olds, tends to negative any suggestion of mass vaccination on school entry. Under these conditions the blunderbuss application of vaccination seems superfluous and a laborious addition to the series of inoculations already confronting young children. It is also desirable of course to preserve as far as possible the diagnostic value of the tuberculin test.

Against this it must be remembered that mass vaccination is a means of protecting child contacts whose parents are agreeable to testing and vaccination in school, but who would not visit the Chest Clinics for the same purpose.

If these conclusions have any importance at all it seems desirable to establish their accuracy. That means repeated surveys on a scale sufficiently wide to draw valid inferences and, for choice, embracing additional age groups. Currently over 40% of Ennerdale schoolchildren are tuberculin positive by the age of thirteen and there is almost certainly a preceding age at which the mass testing and vaccination then carried out would be of greater value. The task is to find it. There is another point worthy of mention. B.C.G. vaccination in this area has reached a level at which it is desirable to ascertain the vaccination history of each child prior to testing. The avoidance of unnecessary tests is less important to the doctor than it is to the child, who may have had two Mantoux tests and a vaccination only a short time ago. If the point is not cleared up in advance it means also a large number of parental enquiries and objections to be dealt with when consent forms are distributed, with consequent delay and confusion. In this regard the records of the Chest Clinic are of the utmost value, and I am grateful to the chest clinic staff for answering numerous enquiries fully and promptly. Finally it will be seen that the tentative conclusions offered depend almost wholly on comparison with a previous survey. It may well be that single surveys, even if they should yield little of value by themselves, nevertheless may give information which will prove useful at some later date."

### **Medical Examination of Teachers**

		Category							
	Total	A1	A2	B1	B2	С			
Entrants to Training Colleges Form	uniternity	in these	in mail	aluponia					
4 R.T.C Entrants to employment as teachers by Cumberland Education Com-	125	94	31						
mittee (Form 28 R.Q.) There were examined in addition—	90	60	25	3		2			
"Experienced" teachers from other authorities entering em-									
ployment in Cumberland	22	21	1	T trees					
but nothing his the and of thirden and	237	175	57	3	19 <u>7-1</u> 974	2			

- A.1.—Those who are in good health and free from any physical defect.
- A.2.—Those who are in good health but possess defects which are not likely to interfere with efficiency in teaching.
- B.1.—Those who are in good health but suffer from physical defects (including disfigurement or deformity) which are likely to interfere, to some extent with efficiency in teaching though they are not serious enough to make the candidate unfit for the teaching profession.
- B.2.—Those who are temporarily in sub-normal health but may, under treatment make a good recovery.
- C. Those whose condition is such as to make them unfit for the teaching profession.

Within the framework of existing regulations, it is possible for an authority to require a satisfactory chest X-ray on appointment, and annual X-ray thereafter as a condition of service and this would be a desirable addition to the encouragement which is given to existing staff to attend mass radiography sessions when the unit is in their area.

### **Prevention of Diphtheria**

The arrangements for diphtheria immunisation continued in 1957. Preschool children are immunised at infant welfare centres or by general medical practitioners at their surgeries, usually between the age of nine months and one year. One "booster" dose is given when the child enters school so that immunity is maintained, another at nine, and a third at thirteen. Those children who were not immunised before the age of five are given, subject to the parents' consent, a full course of injections on starting school. During 1957, 395 school children were immunised, and 4,056 were given reinforcing or "booster" injections.

It is a matter for satisfaction that for the ninth year in succession no case of diphtheria was notified in Cumberland indicating that for the time being diphtheria has disappeared from the county. There is now a danger that through complacency parents may think that there is no longer any need for them to trouble about immunisation and active steps must continue to be taken to prevent this.

At the end of 1957 it was decided to introduce whooping cough vaccination through the County Council service. Figures will be available for the 1958 report.

### **Poliomyelitis Vaccination**

This matter will be more fully dealt with in the County Medical Officer's Annual Report, but it seems desirable to mention it here in so far as it affects school children.

During 1957 vaccination against poliomyelitis fell into two distinct aspects, the first to secure the vaccination of children born between 1952 and 1947, whose parents had registered them during the spring of 1956; this became a continuous process during the year and regular supplies of vaccine were received from the Ministry. The second aspect was the registration of those children born in the years 1952 to 1943, who had not been registered previously.

Dealing with the vaccination first, it was possible during 1957 to offer vaccination to all the children who had been registered during 1956, and at the end of the year the position regarding school children was as follows:—

	1947	1948	1949	1950	1951	1952	Total
Vaccinated during 1956	37	27	31	32	44	49	220
Vaccinated during 1957	356	328	315	319	245	295	1858
Total as at 31st December,							
1957	393	355	346	351	289	344	2078

There were seventy-nine children who were registered in 1956 who had not been vaccinated, and eighty children who, at the end of the year, had only received one injection; these children are shown in the summary of children awaiting vaccination below.

Dealing with the second phase, instructions were received from the Ministry during May, 1957, to the effect that vaccination could once again be offered to those children born in the years 1952 to 1947 who had not hitherto been registered, and steps were then taken to issue the registration consent forms to all children attending County schools and they were distributed through the Head Teachers. During November the age groups were extended to include children born 1943 to 1946, both years inclusive. At the same time, to enable the extended programme to be carried out, it was announced that additional supplies of vaccine would be imported as a temporary measure. This would be Salk vaccine manufactured in Canada and the United States, and it would be required to pass in this country the same safety and other tests as are applied to the British vaccine. Registration consent forms were once again issued through the Head Teachers of the schools.

As I forecast in my report last year, a much greater demand for registration was evident and in the year groups 1947 to 1952 the acceptance rate in the county was approximately 81%, as compared with 9% during 1956. At the end of the year the position regarding children registered and awaiting vaccination was as follows: —

	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	Total
Registered 1956 and not yet vaccinated	into j				7	10	12	22	17	11	79
Registered 1956 and											
have had one injec-	1990										
tion					10	14	17	15	14	10	80
First registration											
1957					3230	2931	2847	2766	2748	2526	17048
Second registration						all ba					
1957	853	1098	962	931							3844
		1201	Chill			TADE					
	853	1098	962	931	3247	2955	2876	2803	2779	2547	21051

Provision was made on the registration consent forms for General Medical Practitioners to indicate on each individual consent form that they agreed to make the necessary arrangements for the vaccination of any particular child for protection against poliomyelitis. It was also necessary in the later registrations to give the parent the opportunity of refusing Salk vaccine and to await supplies of British vaccine. Registration forms in these latter groups were still being received at the end of the year, but it was evident at that time that less than 10% of the parents had elected to await supplies of British vaccine.

### **Infectious Diseases**

Details of cases of infectious disease in children of school age are given in the table below:—

									_				
in provide the	Scarlet Fever	Whooping Cough	Ac. Polio. Paralytic	Non-Paralytic	Measles	Dysentery	Meningococcal Infect.	Ac. Pneumonia	Ac. Enceph Infect.	Food Poisoning	T.B. Resp.	T.B. Other	TOTAL
Urban	e the	Berton	blin	with	instant	a sign	orior	Ser ab	sold	AND .	संसद्ध	orien	10 mis
Cockermouth	abb <u>tra</u>	1		_	2	_	1000	1		_	1000		3
Keswick	1	_	_	_	_	_		1000	_		2	_	2
Maryport	_	25	_	_	159	_		_			2	_	186
Penrith	3	6	_	_	149	_		_	_	1	1	_	160
Whitehaven	2	12	-	_	24	1		4	_		_	2	45
Workington	2	15	-	-	316			2	-	_		_	335
Rural													1. 211
Alston	the party	25		_	3	1spl	3.000	1.0010	alla, s				28
Border	2	29	00.0		396	100	1163	1	1	100	1		430
Cockermouth	2	12	1201	110	82	1	1	2	-	4	1		104
Ennerdale	1	35	1		128	4	1	6	1.41		5		180
Millom	2	20	_	1	7		_	3	12		4		37
Penrith	3	18	2	2	153	1		1		1	_		181
Wigton	1	53	_	-	225	_	-	_	_	_		1	280
Total	18	251	2	3	1644	7	2	19	1	6	15	3	1971

Once again no cases of small-pox or diphtheria occurred. Cases of scarlet fever still occur and streptococcal sore throat is now regarded as a variant of the same disease for the purposes of exclusion. Many of us are feeling a measure of concern about what is known as the entrenched streptococcus and it is probable that prevention will take a more prominent place than formerly in this field. A number of outbreaks of measles occurred during the year and whooping cough still causes absence from school and some morbidity in later life.

### **Tuberculosis**

18 school children were notified as suffering from tuberculosis during 1957, details are given in the table below:—

Age		5-10 years		11-15 years		Totals	
Sex		M.	F.	М.	F.	М.	F.
Pulmonary		2	4	2	7	4	11
Non-Pulmonary		1	1	1	handline to	2	1
	Total	3	5	3	7	6	12

53

### Influenza

Throughout August it had become obvious that an epidemic of Asian-type influenza was spreading steadily northwards, and out of discussions between the health and education departments plans were made for emergency feeding arrangements in the event of large numbers of School Meals Service Staff taking ill simultaneously, and heads of schools were informed before the outbreak was at its height of the emergency arrangements for dealing with sudden and excessive demands for school transport. Arrangements had already been made for co-operation with general practitioners and the Public Health Laboratory Service and by 16th September the infecting agent in an adult case had been identified as influenza virus Asian Type A.

First reports came in from the Whitehaven and Ennerdale areas, where during the third week of September school absences ranged between 25% and 80%, entrants being more affected than older pupils. Cases started occurring during the fourth week of the month in the Millom area and in northern Cumberland where the children and staff of two children's homes contracted the disease in a mild form. Schools in the Penrith rural area now became affected and one small school closed itself for a few days for the want of pupils. Staff were affected in many schools, but in every case a substitute was found. By the first week of October the epidemic had reached its height in the south east of the county, and schools in the Cockermouth and Keswick areas were showing absences of up to 30% with staff also affected. Two pupils from a boarding school were removed to hospital as a precaution where they made an uneventful recovery. By the third week of Cctober reports of excessive absences ceased to come in and the wave appeared to have passed. In three deaths occurring in school children due to pneumonia during the period of the epidemic, influenza was considered to be a contributing factor.

### Poliomyelitis

In 1957 there were 5 confirmed cases in school children in Cumberland. Of these 2 were paralytic and 3 were non-paralytic. These cases formed part of 2 small outbreaks that occurred in the Penrith and Millom areas respectively.

### School Premises

### Hygiene and Sanitation

Some ten years ago in "The Health of the Schoolchild 1939-1945", the Chief Medical Officer of the Ministry of Education drew attention to the importance of the school medical officer interesting himself not only in school structure and sanitation, but also furniture and equipment in that these have a direct bearing on a child's physical development. Resulting from the work of various committees during the war years, certain standards and recommendations have been made and a great deal of work has been done on the relationship between desks and chairs and the development of posture. Standards for school premises — in which is included not only structural and sanitary matters, but also heating, lighting, drinking water supply, playing field and playground accommodation, and facilities for the drying of outdoor clothing, for school meals and for medical inspection—were laid down in 1945 and revised in 1954. These Standards for School Premises Regulations have formed the basis of the routine annual inspection of schools by school medical officers during the past year. Many shortcomings can be dealt with locally; in other cases the observations of the school medical officer have been passed to the Director of Education for action. In a scattered county standards are bound to vary widely and to bring all schools to the levels recommended would be little short of Utopian. There are however many points of extreme interest which emerge from a survey of this kind.

The survey started in January and by the end of the year every school in the county had been reported on. The schedules were completed in co-operation with heads of schools at the end of the routine medical inspection and required an additional thirty to fifty-five minutes of the school medical officer's time, depending on the size of the school. Once completed the schedules are to form the basis of subsequent annual inspections of premises and observations of uncorrected or new defects will be added from visit to visit. Through the co-operation of the Director of Education periodic progress reports on schools are made accessible to individual school medical officers as it is considered that this "follow up" is essential to maintain interest.

Facilities for medical inspection vary from a screened off portion of the one classroom of the small rural infant school, to the well equipped consulting room of the newer secondary modern school, often accompanied by sick bay accommodation. Arrangements for drying wet outdoor clothing vary from heated cloakrooms to hot cupboards but again many rural schools are without any special facilities at all. Roller towels are still conspicuously popular, though in a number of schools pupils are responsible for their own individual towel which is laundered weekly. Paper towels have only been issued during outbreaks of infectious disease. No report was made of insufficient or unwholesome drinking water. In some cases both medical officers and heads have pressed enthusiastically for drinking fountains, standards for which are not laid down in the Regulations. A supply of hot water for washing hands before meals and after toilet is not yet available in every school. Reports on washing and sanitary accommodation and defects in sanitary fittings though few in number confirm the value of this aspect of the Medical Officer's training, and the advantages of a school medical officer also being a medical officer of health were obvious, particularly in relation to those rural schools where the chemical or earth closet is still the order of the day. Advice was given in a number of cases to improve ventilation and the importance of airing rooms between classes

is still not universally appreciated as a means of reducing the spread of upper respiratory infections. By the temperature standards laid down in the Regulations some classrooms were reported to be inadequately heated and steps were taken to bring them up to the recommended 62°F. Accommodation for dining ranged from the light airy dining hall with its modern decor and furniture, to the small village room or hall. In some small country schools the meal is served at one end of the classroom. Washing-up facilities likewise vary from the modern stainless steel canteen to a basin in the classroom, or failing this, dishes are returned to the central kitchen for washing. Whatever the facilities a detergent-hypochlorite solution is in universal use and no adverse reports were received of the standard of service or cleanliness of the meal. Defects in canteens in respect of the Food Hygiene Regulations were dealt with in the usual manner by the local authorities and are out with the scope of this survey, though once again the value of the medical officer in a "mixed appointment" was apparent.

In one or two of the older schools there is still some delay in replacing the cbsolete type of desk with its immovable seat and foot bar by the modern individual tables and chairs of varying heights which are based on recent research and allow maximum support and freedom in the development of normal posture. Where necessary it has been found possible by co-operation between teachers and doctors to provide a modified desk and chair, and to give assistance at toilet and up slopes or steps, for a pupil with a physical disability who, but for such arrangements, would need to be admitted to a special school.

An ideal sphere for the campaign to reduce accidents in young children is the school and advice was given as to improving the effectiveness of fireguards, the fitting of stops to upstairs wndows, and the erection of barriers to gates, and recommendations were made to deal with playgrounds with uneven or dangerous surfaces, or playing spaces water-logged and unusable in wet weather.

The quality of school meals and sources of school milk are described by the Director of Education in the section which follows.

### School Meals

"During the year 1957 a hot midday meal was again available to all children of school age attending each of the 281 nursery, primary and secondary schools maintained by the Authority who wished to take advantage of this provision, and children took dinners at all these schools, with the exception of Beckermet C. of E. School where there was again no demand. "The percentage of pupils taking meals again showed a slight decrease compared with the previous year's figure. On a check day in September 1956, 62.63% of the children in attendance at school were served with a midday meal, but by October 1957 the figure had fallen to 60.15% and consumption showed a decrease of some 890 dinners a day. The total number of dinners served on a check day in Autumn 1957, was 20,498. The decrease in the average daily number of meals taken followed a Government decision to increase the charge per dinner from 10d. to 1/from 1st April, 1957.

"The year under review saw a relaxation of the Government's ban on new major canteen building at existing schools and the Ministry of Education approved the Authority's proposals for the erection of a new 250 meals kitchen and dining room at Keswick School, and a dual purpose 200 meals dining room/classroom and scullery at Workington Newlands School and for the demolition of the Hogarth Mission Hall at Whitehaven and improvements to the adjoining School Room so as to enable it to be re-occupied as a dining centre by children attending Whitehaven, Crosthwaite Memorial C. of E. School. In the meantime, the children continue to dine in the school.

"During the year, the new Samuel King's School at Alston was opened, instalments of the new Holme Cultram Abbey C. of E. and Thursby Schools were taken into use, and Carleton School re-opened in its own premises. These developments involved changes in the meals arrangements which had previously been in operation at all four schools.

"A 250 meals kitchen, which forms part of the new Samuel King's School, opened on 25th September, 1957. It supplies dinners to children attending Alston High and Alston Infants' Schools as well as meeting the need for meals for pupils attending Alston Samuel King's School. The opening of this kitchen has allowed the closure of the kitchen in the Chapel Terrace Schoolrooms, but it is necessary to retain the use of these rented premises as dining accommodation for children attending Alston High School until such time as the old Samuel King's School can be adapted to accommodate both the High and Infants' Schools.

"The first instalment of the new Holme Cultram Abbey C. of E. School was occupied by the infants on 1st May, 1957, and a temporary servery, catering for approximately 45 meals daily, was taken into use on that date. The juniors continue to occupy the existing old school premises.

"On the completion of the second instalment of the new Thursby School, it was possible to vacate the old school premises, which have been retained in use only for physical education and for the service of school dinners. The former unsatisfactory dining centre in the Church Institute at Thursby was not used after 26th July, 1957; instead, a dining room and scullery opened in the old school premises on 2nd September, 1957, and will be used until the new school is completed. The range of scullery equipment at the old school is limited because of the nonavailability of a suitable supply of electricity.

"The additions to Carleton School, which included a properly equipped servery, were completed in time to allow the school to re-open on 7th January, 1957. The new servery is a welcome improvement since, formerly, the washing up after the school meal was carried out in a cloakroom which was ill-equipped for this purpose.

"Dining conditions at Greystoke School were improved somewhat from 1st May, 1957, when the Village Hall was taken into use for the service of dinners. Formerly, meals had been eaten in the school and all used crockery, etc., returned to Penrith Central Kitchen for washing.

"In order to relieve the overcrowding at Workington New South Watt Street Dining Centre, which was formerly shared by five schools, suitable washing up equipment was installed in Workington, St. Michael's Boys', Girls' and Infants' Schools, and the service of meals began in each of these schools on 1st May, 1957, (both Boys' and Girls') and 30th September, 1957, respectively. Workington St. Patrick's R.C. Infants had already begun to dine in their own school on 18th February, 1957, (the used crockery being returned to the New South Watt Street Dining Centre for washing) so that Workington, St. Patrick's R.C. Juniors are now the sole users of the New South Watt Street Dining Centre.

"In addition to the improvements already mentioned, the Authority has also carried out work at other kichens, self-contained canteens and dining centres to bring conditions of hygiene in these premises up to the standards required to satisfy the Food Hygiene Regulations. A fair amount of work still remains to be done in this connection and further improvements will be undertaken as quickly as possible.

"Because the rented premises at Fletchertown, which for many years had served as a kitchen and dining room for Allhallows C. of E. School, did not comply with the conditions of the Food Hygiene Regulations and the kitchen was too small to permit the installation of additional cooking equipment to deal adequately with the daily demand for dinners, the opportunity was taken, at the end of the Summer Term, 1957, to cease cooking dinners on the premises and to re-open the canteen as a dining centre only, from the beginning of the Autumn Term, 1957, dinners being sent in from Maryport Central Kitchen.

"It also became necessary to close down, at the end of the Autumn Term, 1957, the kitchen and dining room in rented premises forming part of the Globe Hotel at Gosforth, owing to the landlord's giving notice to terminate the Authority's tenancy agreement. Fortunately, it was possible to come to terms with the Trustees for the use of the Gosforth Methodist Schoolroom as dining accommodation only for children attending Gosforth C. of E. School from the beginning of the Spring Term, 1958. Dinners will be sent from Egremont Central Kitchen and used crockery returned to the Central Kitchen for Washing."

The reports from the school medical officers generally indicate the interest which they take in the school meals service in so far as it affects the health of the pupils, and I should like to quote from Dr. Campbell's report:—

"The value of school meals is well known and cannot be too strongly emphasised. It is a well known fact that these have been a major contributory factor in the improvement of the health of the school child in recent years. There are two types of child to whom school meals are of particular value. The child from a good home who is 'pernickety' about his food and whose mother is inclined to fuss. This child is brought to the school clinic complaining of a poor appetite. The appetite almost invariably improves when the mother takes the advice of allowing the child to stay at school for school dinners. The interest of seeing his schoolfellows enjoying a good mixed meal usually inspires him to join in. Added to which he no longer has the worry of the time factor-he has not the responsibility of arriving home in time for the midday meal or returning in time for afternoon school. The second type of child comes from a family where the home conditions are bad. Although it is found at school medical inspection that this type of child is dirty and ill-clad he is almost always well nourished if he has school meals. One good meal a day with second helpings and the morning milk can keep his general condition satisfactory in spite of inadequate meals at home-usually a slice of bread and jam for breakfast and the same in the evening or if he is lucky a bag of chips."

Dr. Mair says, "A final comment, on school meals. Preventive dentistry teaches that meals should end with something hard not soft. Only one meal out of about a dozen that I had last term did this. The others ended with a good, but sticky pudding."

### Milk in Schools

A check taken for the Ministry of Education on a day in October, 1957, showed that of the 36,325 day pupils present at the 281 nursery, primary and secondary schools maintained by the Authority, 26,055 were taking milk. These figures indicate that 71.7% of Cumberland children were drinking milk in schools at the time of the check compared with last year's figure of 75.6%.

The following table shows the percentage of different types of milk being supplied to maintained day schools at the end of 1957, the corresponding figures for 1956 being shown in brackets:—

Pasteurised	60	(62)
Tuberculin tested	38	(34)
Attested	2	(4)

### **Physical Education**

I am indebted to the Chief Organisers of Physical Education, Miss Kathleen Sutton and Mr. Lionel Heyworth, for the following report:---

"In many Cumberland schools physical education is making its contribution to the education of the whole child. This is being achieved through a deepening understanding and appreciation of method of approach and teaching technique; through training of mind and body to meet circumstances efficiently as they arise on the games ueld and the fellside, in the workshop and classroom, in the office and the factory, and on the farm; through the recognition of the paramount importance of high quality in human relationship between teacher and child and within the group; through the awareness of the strong, creative power in children expressed with such richness in dance, writing, gymnastics, poetry, movement, shape, colour, drama and craft.

"In a few schools good contact with the children and the ability to improvise has overcome in some measure the lack of space and equipment, and work that is alive and spirited has been produced. Teachers are to be congratulated on the thoroughness of preparation in their effort to compensate for the lack of accommodation and good surfaces, both indoors and out of doors. Twentynine urban primary schools enjoy the use of climbing apparatus but we look to a policy of installing portable and fixed climbing equipment in the remaining urban schools and indeed in the rural schools where the natural facilities of the countryside are very often not open to the children.

"There has been an increase in the provision of suitable clothing for physical education, particularly for the games field. The need to equip the child with warm clothing for the games lesson is gradually being appreciated by parents of children who attend non-selective secondary schools. In a few schools suitable arrangements are made in relation to clothing for physical education, but it must be appreciated by teachers that unless an efficient system of changing and sorting of clothes is organised, a high standard of hygiene, and indeed performance, cannot be maintained.

"With the improvement of existing school playing fields, the construction of games facilities at new secondary schools and the regular maintenance of 192 acres of playing fields throughout the County by the three maintenance teams, the impact of training upon good level grass areas has made itself obvious in an improved standard of play in all major games. The effort of the Authority to help in the provision of good games facilities has been carried over to the adult field where officers have continued to give technical help and advice to the County Playing Fields Association. "Discussion groups, training courses and coaching sessions have been organised for Cumberland teachers and children in basic movement training and games in five areas. These gatherings were well supported by the schools.

"There has been steady progress in games training and in the number of inter-school meetings, especially noticeable in the secondary schools. In the post school field the year has seen the formation of old scholars' clubs. and among adults five new hockey clubs have been established and have affiliated to the County Hockey Association, and a Youth Cricket Association has been formed.

"In the villages of the fell districts of Cumberland and in several centres in the industrial west, social life includes small gatherings of voluntary groups who keep alive the traditional dance, and arrange barn dances, which are popular with both men and women.

"Tournaments and rallies for schools have been organised by voluntary associations, and Cumberland has taken its place in inter-county and area events in all the major field games.

"Over 2,000 children received regular swimming instruction during the summer months in indoor baths, lakes and rivers. 250 boys and girls have gained Royal Life Saving awards, a number of these tests being taken under difficult conditions in Derwentwater and the River Eamont. This year Talkin Tarn has provided facility for swimming instruction for senior pupils from the Brampton schools.

"Normal physical training and movement lessons cater for preventive and remedial treatment of minor postural defects. The Education Authority's policy of the provision of good floors for barefoot work, the inclusion during this year of foot baths in four rural primary schools, and the use of individual foot towels are making their contribution to foot consciousness and the care of the feet."

### **Health Education**

### Smoking and Lung Cancer

When action on Ministry of Health circular 7/57 was considered in October, 1957, it was felt that particular effort should be made to bring the facts to the notice of young people in the hope that many might be persuaded never to start the habit. Consultations took place between the health and education departments and it was felt that for any such programme of specialised health education to succeed, the co-operation of heads of schools was essential. Copies of the issue of the Health Education Journal in which this subject was discussed were therefore issued to all heads, to whom in addition, health visitors were made available as requested to give talks on the subject, either on specific occasions or as part of the existing curriculum of health education. It was also agreed that leaders

of youth organisations be circulated by the Director of Education and that requests for a speaker be met by the provision of a school medical officer or health visitor. To a large extent the success of any campaign aimed at preventing the formation in the schoolchild of habits which are injurious to health must rise or fall with the example set by adults with whom the child is in contact. Notwithstanding, much material is is the course of preparation to present this highly controversial topic to varying audiences, and there is no doubt that when faced with a task as intricate as this a health visitor shows her training and personal qualities as an educator to the fullest advantage.

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### APPENDIX A.

### MEDICAL INSPECTION RETURNS YEAR ENDED 31st DECEMBER, 1957

### TABLE I

### MEDICAL INSPECTION OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS (INCLUDING SPECIAL SCHOOLS)

A-Periodic Medical Inspectio	ons	-10	942 in Go		
Age Groups inspected and	d Number of Pup	ils examined	in each:-	_	
Entrants to Infant	Schools				3,476
					3,801
Born 1943 (1942 in	n Grammar Scho	ols)			2,973
and the set of the set					
			Total		10,250
Additional Periodic	c Inspections				614
and the second se					
P. Other Increation		Gra	and Total		10,864
B—Other Inspections	Tananti				
Number of Special					7,425
Number of Re-ins	spections				11,830
of a scinents, by Unc.co. r					
C-Pupils found to Require 1	Fratmant		Total		19,255
NUMBER OF INDIVIDU	IAI DIDIISEC		EDIODIC		DIGHT
INSPECTION TO REQ	LIRE TREAT	IENT (EV	CLUDINC	ME	EDICAL
DISEASES AND INFEST	CATION WITH	VERMIN)	LUDING	D	ENIAL
	For defective		the other		Total
Age Groups Inspected	vision (excludin				dividual
A. Other	squint)	in Tab			pupils
Entrants to Infant	Internet in the second	an all and a de		3903	pupits
Schools	33	46	0		480
Born 1947	170	29	9		443
Born 1943 (1942 in					405
Grammar Schools)	167	16	0		308
and a standard and the			-		
Total	370	919	,	1	,231
Parchological-	0		-		
1.1.0.1					
Additional Periodic					
Additional Periodic Inspections	25	50	)		71
	25 		10 11		71

D-Classification of the Physical Condition of Pupils Inspected in the Age Groups Recorded in Table I.A.

	Number of	Satisf	actory	Unsatisfactory		
	Pupils		% of		% of	
Age Groups Inspected	Inspected	No.	Col.(2)	No.	Col.(2)	
Entrants to Infants Schools	3,476	3,428	98.62	48	1.38	
Born 1947	3,801	3,740	98.40	61	1.60	
Born 1943 (1942 in Gram-						
mar Schools)	2,973	2,956	99.43	17	0.57	
Additional Periodic Inspec-						
tions	614	608	99.02	6	0.98	
7 073	Tabaalle y			mol		
Total	10,864	10,732	98.78	132	1.22	

### TABLE II

### INFESTATION WITH VERMIN

(i)	Total number of individual examinations of pupils in schools by the school nurses or other authorised persons	76,513
(ii)	Total number of <i>individual</i> pupils found to be infested	1,029
(iii)	Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2), Education Act, 1944)	nil
(iv)	Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3), Education Act, 1944)	nil

# TABLE III

# RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1957.

### A-PERIODIC INSPECTIONS

					TO	TAL
		Periodic	Inspection	ns		g all other
server and some sheet sheetad		itrants	Lea	vers ag	ge groups	inspected)
Detect	Requiring	Requiring H		Requiring F	Requiring	Requiring
Code Defect or	Treat-	Observa-	Treat-	Observa-	Treat-	Observa-
No. Disease	ment	tion	ment	tion	ment	tion
4 Skin	38	89	42	61	126	219
5 Eyes—						
a. Vision	33	97	166	465	395	1,128
b. Squint	34	76	9	38	68	216
c. Other	28	15	15	10	74	55
6 Ears—			lader			55
a. Hearing	15	29	4	19	27	80
b. Otitis Media	7	34	6	36	16	118
c. Other	7	9	1	7	23	29
7 Nose and Throat	104	456	12	56	161	721
8 Speech	66	68	1	6	85	113
9 Lymphatic Glands	11	95	-	8	11	
10 Heart	2	73	1	33	6	142
11 Lungs	38	296	4	120	1510.0	167
12 Developmental—	50	270	-	120	62	598
a. Hernia	3	18	4	4	0	-
b. Other	5	59	3	4	8	29
13 Orthopaedic—	_	39	3	10	7	308
a Docture	8	19	11	20	-	
h Feet		18	11	29	28	68
a Other	24	48	13	49	73	153
c. Other 14 Nervous Systèm—	66	209	17	78	111	408
a. Epilepsy	-	6	-	4	-	20
b. Other 15 Psychological—	5	9	-	4	10	18
0.000	L. Dicher					
a. Development	5	19	-	34	20	141
b. Stability	5	41	2	10	9	99
16 Abdomen	4	40	4	10	11	77
17 Other	59	86	17	49	131	248

### **B**—SPECIAL INSPECTIONS

Defe	ct Defect				Special I	Inspection
Code	e or				Requiring	Requiring
No.	Disease				Treatment	Observation
					061	56
4	Skin				961	56
5	Eyes—a. Vision				488	546
	b. Squint				62	23
	<i>c</i> . Other				170	37
6	Ears—a. Hearing				32	26
	b. Otitis Media				43	23
	<i>c</i> . Other				37	15
7	Nose and Throat				115	99
8	Speech				42	25
9	Lymphatic Glands				13	24
10	Heart	101			11	9
11	Lungs				62	78
12	Developmentala. Hern	lia			1	4
	b. Othe				3	7
13	Orthopaedic-a. Posture		35	2	9	9
15	b. Feet			·	28	15
	c. Other				52	41
14	Nervous system—a. Ep.		See		3	9
14	b. Otl				24	9
15	Psychological-a. Develo				15	47
15	b. Stabili				5	24
16		ity			15	26
16	Abdomen				1,065	108
17	Other				1,005	100

### TABLE IV.

## TREATMENT OF PUPILS ATTENDING MAINTAINED PRIMARY AND SECONDARY SCHOOLS (INCLUDING SPECIAL SCHOOLS)

# GROUP 1.-Eye Diseases, Defective Vision and Squint

(1) Number and the supering by the Aschool 2	No. of cases known to have bee dealt with		
External and other, excluding errors of refraction	By the Authority	Otherwise	
and squint	151	62	
Errors of refraction (including squint)	. 143	2,032	
Total	294	2,094	
Number of pupils for whom spectacles were	CROKIPS		
prescribed		1,693	
		The second second	

GROUP 2.—Diseases and	Defects of	Ear. Nose and Throat
-----------------------	------------	----------------------

	No. of cases known to have been treated
Received operative treatment-	By the Authority Otherwise
<ul> <li>(a) for diseases of the ear</li> <li>(b) for adenoids and chronic tonsillitis</li> <li>(c) for other nose and throat conditions</li> <li>Received other forms of treatment</li> </ul>	- 231 - 71
Total	
Total number of pupils in schools who are known to have been provided with hearing aids-	N-Papily who esserved coave
(a) in 1957 (b) in previous years	- 7

# GROUP 3.—Orthopaedic and Postural Defects

Number of pupils known to have been treated at	by the Authority	Otherwise
clinics or out-patient departments	. 430	798

# GROUP 4.—Diseases of the Skin (excluding uncleanliness for which see Table II)

treatment de A	ases treated or under uring the year by the Authority
Ringworm—(i) Scalp	3
(ii) Body Scabies	13 9
Impetigo	212
Other skin diseases	700
Total	937
GROUP 5.—Child Guidance Treatment	
Number of pupils treated at Child Guidance Clinics under arrangements made by the Authority	252
GROUP 6.—Speech Therapy	
Number of pupils treated by Speech Therapists under arrangements made by the Authority	287
under urrangemente made of the rranterity	
A Province and the second	
GROUP 7.—Other Treatment Given	
(a) Number of cases of miscellaneous minor ail- ments treated by the Authority	981
(b) Pupils who received convalescent treatment under School Health Service arrangements	119
(c) Pupils who received B.C.G. vaccination	1,549
(d) Other than (a), (b), (c) above —	and in the
Pupils who received Poliomyelitis vaccination	1,858

### TABLE V.

# DENTAL INSPECTION AND TREATMENT CARRIED OUT BY THE AUTHORITY

(1) Number of the second s	1210-101	STOCKLOCK	
(1) Number of pupils inspected by the Authority's Dent	al Office	ers:	enter a l
(a) At Periodic Inspections			24,158
(b) As Specials			746
the stand of the second second			
	Total	(1)	24,904
		19 20 <del>-</del>	AND TELL
(2) N. I. M. I.			15,984
(1) Number setuelly toot 1			12,590
(4) Number actually treated			9,189
(5) Number of attendances made by pupils for treatment those recorded at heading 11(h) below		cluding	
(6) Half days devoted to: Periodic (School) Inspection			21,023
Treatment		• •••	267
reatment		• •••	2,372
	Total	(6)	2,639
(7) Fillings: Permanent Teeth			7.070
Temporary Teeth			7,979
	• •••		1,091
	Total	(7)	9,070
(8) Number of teeth filled: Permanent Teeth			7,495
Temporary Teeth			1,065
	Total	(8)	8,560
(9) Extractions: Permanent Teeth		_	
Temporery Test			4 848
remporary reetn	• •••		10,905
	Total	(9)	15,753
(10) Administration of general anaesthetics for extraction	·		3,000

### (11) Orthodontics:

(a) Cases commenced during the year		 		60
(b) Cases carried forward from previous	year	 		135
(c) Cases completed during the year		 		52
(d) Cases discontinued during the year		 		30
(e) Pupils treated with appliances		 		60
(f) Removable appliances fitted		 		65
(g) Fixed appliances fitted		 	A P	5
(h) Total attendances		 490	A 5 p	826
(12) Number of pupils supplied with artificial of	dentures	 		240
(13) Other operations: Permanent teeth		 		5,163
Temporary teeth		 		173
180.21 Inter and in the Inter			1 1000101	141 194

Total (13) ... 5,336

NOI		Total	20 10	3 6	3		120	-	• 1	121		1	I	21
HANDICAPPED PUPILS REQUIRING EDUCATION AT SPECIAL SCHOOLS APPROVED UNDER SECTION 9 (5) OF THE EDUCATION ACT 1944, OR BOARDING IN BOARDING HOMES		(9) Epileptic	- ۲		PE.NJ		١m	1	1	3		1	1	1
UNDI MES	Educa- tionally sub- normal	8) Malad- justed	• I	-			1-	1	1	1		1	1	1
OVED G HC	(7) Educa- tionally sub- normal	(8) Malad- justed	14	52			83 1	1	1	84	1944.	1	1	9
APPRC	Delicate Physi- cally	handi- capped	0 -				- 1	1	1	7	Act,	1	I	12
OLS N BO	(2)	v		7			14	1	1	3 4	ation	1	1	4
SCHO NG II	(3) Deaf (4) Parti-	ally Deaf	+ -				100	1	1	3	Educ	1	1	1
IAL A	(6)		r 1	1			10	1	1	6	of the	1	I	I
D PUPILS REQUIRING EDUCATION AT SPECIAL SCHOOLS APPROVED UNI 9 (5) OF THE EDUCATION ACT 1944, OR BOARDING IN BOARDING HOMES	(1) Blind (2) Parti-	ally sighted	4 1	1			l vo	1	I	5	Section 56 of the Education	Г	1	1
TION /			rding 1	ional	pbed			inder	uded	5	under		Ĭ	1
DUCA		During the Calendar year ended 31st December 1957, how many handicapped pupils —	were newly placed in special schools or boarding homes?	were newly assessed as needing special educational treatment at special schools or in boarding homes?	andica	as	::	(ii) were on the registers of independent schools under arrangements made by the Authority	(iii) were boarded in homes and not already included under (i) or (ii)	:	were being educated under arrangements made u	(i) in other groups (e.g. units for spastics, convales-	:	:
NG E		ig the Calendar year ended 31st Decen 1957, how many handicapped pupils —	ools c	pecial	any h	(i) were on the registers of special schools as	::	ent sch	alread		ments	 pastics	Ŧ	:
UIRI		ipped 3	I sch	ing sl od ni	ea-	scial s	::	epende	d not	:	ranger	for sl	:	:
REQ		ear er andica	specia	need ols or	958, 1 iy's ar	of spe	::	of ind	mes an	:	der ar	 units	:	:
PILS		dar y	d in .	ed as I scho	ary, 1 uthorit	isters	. slic	sters ade by	mon 1		ed un	. (e.g.	•	•
3D PL 9 (5)		Calen now m	place.	assess	Janu he Au	he reg	lind Bu	nts ma	ded in or (ii)	:	educat	soups	(	:
APPE		g the 957, I	iewly	ewly nt at	from t	e on t	<ul><li>(a) day pupils</li><li>(b) boarding pupils</li></ul>	were on the registers of independent s arrangements made by the Authority	were boarded in under (i) or (ii)	TOTAL C	eing e	her g	cent homes)	me
NDIC		Durin	were ne homes?	ere n eatme	abou upils	) were	(a) (b) h	were	were	TOT	vere b	(i) in nospitals ii) in other groups	cent	(iii) at home
HA	01		A. w	B. w	On or about 31st January, 1958, how many handicapped pupils from the Authority's area-	C.		(ii)	([]]		D. v	6	~~~~	(111)

APPENDIX B.

		72		
Total	116 116	1 20	56	
<i>l</i> . (9) Epileptic	w ۱ م	1	+ - 3	
- <i>Continued</i> (7) Educa- tionally sub- normal (8) Malad- justed	89 2 8	11-	50	14 - 13
Delicate Physi- cally handi- capped	0 10		- 2  e reported	
APPEN eaf (5) rti- y af	4 I I 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0	1 1	 - 1  ren wei	:::
A (3) Deaf (4) Parti- ally Deaf	ν I <del>–</del>	1	- - 	: : :
<ol> <li>Blind</li> <li>Parti- ally sighted</li> </ol>	3 1 2	101		under (b))  944
ember,	I957, how many handicapped pupils —         E. were requiring places in special schools          (i) TOTAL (a) day           (b) boarding           Please state how many pupils are included in the totals	above— (ii) who had not reached the age of 5:— (a) awaiting day places (b) awaiting boarding places (iii) who had reached the age of 5 but whose parents had refused consent to their admission to a special school:—	ing day places ing boarding places the registers of hospital special school he calendar year ended 31st December,	to the local health authority: — (a) under Section 57(3) (excluding any returned under (b)) (b) under Section 57(3) relying on Section 57(4) (c) under Section 57(3) of the Education Act, 1944 …

### APPENDIX C.

### SCHOOL HEALTH SERVICE CLINICS

### AS AT 31.12.57

### ALSTON:

Dental—2nd and 4th Tuesday — all day. School—Each Wednesday a.m.

### ASPATRIA:

Dental-1st, 3rd and 5th Mondays - all day.

School-Each Wednesday a.m. - Medical Officer attending on 2nd and 4th Wednesdays only.

Orthopaedic Aftercare—2nd Friday p.m., 4th Friday a.m. Speech Therapy—Each Wednesday a.m.

### **BRAMPTON:**

Dental-Each Wednesday - all day.

School-Each Friday a.m. with Medical Officer attending 1st and 3rd Fridays only.

### CARLISLE:

Dental-Daily - all day.

- At Eden School - as required.

School—2nd and 4th Wednesdays a.m. with Medical Officer in attendance. Eye Specialist — Each Monday and Thursday a.m. Orthoptic - Each Monday, Tuesday and Wednesday - all day.

E.N.T. Specialist — Each Monday p.m.

Child Guidance - Alternate Thursday p.m.

Speech Therapy - Each Tuesday p.m., Thursday a.m.

Orthopaedic Aftercare - Each Tuesday - all day.

Orthopaedic Surgeon — 1st Monday every odd month p.m. and every 8th Wednesday a.m., 1st Monday every even month a.m.

### CLEATOR MOOR:

Dental-Each Wednesday - all day.

School-Each Monday and Thursday a.m. with Medical Officer attending 1st and 3rd Thursdays only.

Orthopaedic Aftercare — 2nd and 4th Tuesdays a.m. Speech Therapy — Each Friday a.m.

### COCKERMOUTH:

Dental—Each Tuesday, Friday and occasional Thursday — all day. School—Each Monday and Thursday a.m. with Medical Officer attending 2nd and 4th Mondays.

Eye Specialist — Each Tuesday a.m. Orthopaedic Aftercare — 1st and 3rd Wednesdays — all day.

### EGREMONT:

Dental-Each Monday -- all day.

School—Each Thursday a.m. with Medical Officer attending 1st and 3rd Thursdays.

Speech Therapy - Each Wednesday p.m.

Orthopaedic Aftercare - 2nd and 4th Tuesday p.m.

### FRIZINGTON:

Dental-Each Tuesday - all day.

School-Each Monday and Wednesday a.m. - Medical Officer attending 2nd and 4th Mondays.

### **KESWICK:**

Dental—Each Friday — all day. Speech Therapy — Each Thursday p.m. Orthopaedic Aftercare — 3rd Monday p.m.

### LONGTOWN:

Dental — Each Friday — all day.

### MARYPORT:

Dental—Each Monday, Wednesday and occasional Thursday — all day. School—Each Tuesday and Friday a.m. with Medical Officer attending on 2nd and 4th Tuesdays.

Speech Therapy — Each Wednesday p.m. Orthopaedic Aftercare — 1st and 3rd Tuesdays — all day. Child Guidance — Each Monday p.m.

### MILLOM:

Dental—Each Thursday — all day, each 2nd and 4th Fridays — all day.
School—Each Tuesday a.m. and Friday p.m. with Medical Officer attending 1st and 3rd Tuesdays only.
Speech Therapy — Each Thursday — all day.
Child Guidance — Thursday p.m. as required.
Orthopaedic Aftercare — 3rd Monday — all day.
Eye Specialist — Each 1st and 3rd Friday a.m.

### PENRITH:

Dental-Each Monday, 1st and 3rd Tuesday and occasional Thursday all day.

School-Each Tuesday a.m. with Medical Officer attending 2nd and 4th Tuesdays only.

Speech Therapy - Each Tuesday a.m.

Orthopaedic Aftercare - 2nd and 4th Wednesday all day.

Orthopaedic Surgeon - 1st Monday every even month p.m.

### SILLOTH:

Dental-Each Thursday all day.

### WHITEHAVEN (Sandhills Lane):

Dental-Daily all day. 2nd Clinic Tuesday - all day.

School-Daily a.m. with Medical Officer attending each Wednesday morning.

E.N.T. Specialist — Each Tuesday a.m.

Eye Specialist - Each Monday, Thursday and Friday a.m.

Speech Therapy - Each Tuesday all day.

Orthopaedic Aftercare - Each Thursday all day.

Orthopaedic Surgeon — 1st Friday every odd month a.m. 2nd Wednesday, every even month a.m., every 8th Tuesday.

#### WHITEHAVEN (Woodhouse):

School-Each Monday, Wednesday and Friday a.m. with Medical Officer attending each Wednesday.

### WHITEHAVEN (Mirehouse School):

School—Tuesday and Friday a.m. Speech Therapy — Friday p.m. 'HITEHAVEN (10, Scotch Street):

Child Guidance - Each Wednesday all day.

### **IGTON:**

Dental-Tuesday, Wednesday and Thursday - all day.

School-Each Monday a.m. with Medical Officer attending 1st and 3rd Mondays.

Speech Therapy - Each Friday a.m.

Orthopaedic Aftercare - 3rd Friday a.m.

### **ORKINGTON:**

Dental-Monday, Thursday all day.

### ORKINGTON (Park Lane):

Dental—Tuesday, Wednesday, Friday all day.
School—Daily a.m. with Medical Officer attending each Tuesday a.m.
Speech Therapy — Each Monday all day.
Orthoptic — Each Thursday and Friday all day.
Orthopaedic Aftercare — Each Friday all day.
Orthopaedic Surgeon — 1st Friday every even month a.m., 2nd Thursday odd month a.m. Every 8th Tuesday a.m.

