[Report 1966] / School Medical Officer of Health, Cumberland County Council.

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CUMBERLAND COUNTY COUNCIL
EDUCATION COMMITTEE

The School Health Service

1966

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PREFACE

To the Chairman and Members of the Education Committee:

Mr. Chairman, Ladies and Gentlemen,

I have the honour to present the Annual Report on the School Health Service for 1966.

The school health service in the county of Cumberland has continued to operate on lines already laid down, and the movement towards selective medical examination of school children has continued steadily. I am satisfied that this change, which has been brought about in the last 3 years, is one which will bring great benefits to the child, parent, teacher, and will give a greater chance of enhancing the child's health, especially in the educational setting.

Special educational provision is more in evidence than ever before for handicapped and educationally subnormal pupils.

Although most other nurses in the county health service now carry out their day by day work attached to general practitioner groups, the school nurse has normally no such general practitioner attachment. During the year, however, much thought has been given to the availability and use of medical and nursing manpower. It is felt that the time has come for consideration to be given to the suggestion that general practitioners, where appropriate, might well be appointed to carry out on behalf of the authority, the medical examination of school children in the area of their group practice. This would bring, amongst other benefits, the team approach, as I would expect by that time the school nurse would be firmly attached to the general practitioner group concerned. Thus in the school health service, the move goes steadily on to ensure that professional workers are working in teams and do not work ineffectively in isolation in geographical districts. In such an arrangement more and more children would receive a comprehensive range of medical services from a single team of doctors and nurses.

Discussion has taken place during the year to determine the location of some of the traditional clinics, i.e., Ear, Nose

Mothercraft for Teenagers

The Clinic anl Flat, Cleator Moor

and Throat, and Eye Clinics, and the move here is towards the centralisation of these clinics in hospital where the full facilities are easily available. All the Ear, Nose and Throat and Eye Clinic work is being transferred from the clinic premises at Flatt Walks, Whitehaven, to the new District General Hospital in West Cumberland.

The changes that I referred to in last year's report continue in respect of the central figure of the school health service, the school medical officer.

The various schemes for their further training with consultants and for gaining experience of paediatrics, otology, psychiatry and ophthalmology, have progressed very satisfactorily during the year, so that I now feel more confident of the future work of the school medical officer in association with these more specialised aspects of medical care of youngsters in their educational setting.

The suggestion that routine urinalysis of school children should take place, contained in the observations by Dr. F. M. Elderkin, Consultant Paediatrician, seems to be both very practical and very valuable in that symptomless urinary infections of childhood may be detected and brought to treatment earlier thus preventing chronic renal disease in later life. I hope that this scheme might be tried in one or two areas as a pilot to assess the difficulties and the overall value.

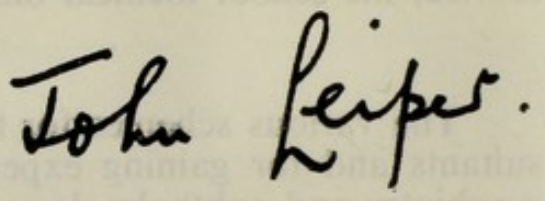
I have been very impressed with the increased interest and help from head teachers and their staffs in the matter of the health of their pupils, and I am very grateful for this positive interest which augurs well for the future.

Under the able leadership of Mr. Gordon S. Bessey, Director of Education, there continues to be a great wish for youth to be involved in the difficulties which are met by inadequate persons in the community, and these schemes continue to flourish under arrangements usually made directly between the youths themselves and the residential establishment, or the individual being served. This type of scheme has progressed much further than I thought it would in this county.

Finally I wish to thank all who have helped in the preparation of this report, especially my deputy, Dr. J. D. Terrell. It has been a year of changes and progress, and the high standard of the work of all members of the Health Department continues to be invaluable.

I am, Mr. Chairman, Ladies and Gentlemen,

Your obedient servant,



Principal School Medical Officer.

County Health Department,
11, Portland Square,
Carlisle.
April, 1967.

SCHOOL HEALTH SERVICE

STAFF AS AT 31.12.66

SCHOOL MEDICAL AND DENTAL STAFF

Principal School Medical Officer—

*J. Leiper, M.B.E., T.D., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.

Deputy Principal School Medical Officer—

*J D. Terrell, M.B., Ch.B., D.P.H., D.C.H.

School Medical Officers—

*E. M. O. Campbell, M.B., Ch.B., D.P.H., D.T.M. & H.

D. H. Chowdhury, M.B., B.S., D.P.H., D.I.H.

A. Hargreaves, M.B., Ch.B., D.P.H. (commenced 1-9-66).

J. R. Hassan, M.B., Ch.B., D.Obst.R.C.O.G. (part-time General Practitioner).

*J. L. Hunter, M.B., Ch.B., D.P.H. (Western Area Medical Officer).

*J. Patterson, M.B., B.Ch., B.A.O., D.P.H. (resigned 21-.5.66).

*F. S. Rogers, M.B., Ch.B., D.P.H. (commenced 5.1.66).

W. S. Slater, M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H. (commenced 1.3.66).

The above are also District Medical Officers of Health and Assistant School Medical Officers.

*J. E. Ainsworth, M.B., Ch.B.

*H. M. Marks, M.B., Ch.B.

*M. Timperley, M.B., Ch.B.

K. Walker, M.B., Ch.B.

*Approved for the ascertainment of educationally sub-normal pupils.

Principal School

R. B. Neal

Area School De

I. R. C. Cr

School Dental C

J. A. G. Ba
J. Docherty
A. B. Gibs
M. Green,
F. H. Jacol
I. H. Parso
A. R. Peck
A. M. Scot

MEDI

Audiometricians

Mrs. M. C
Miss A. Ja

Orthopaedic Phy

Miss J. A.
Miss J. M.

Orthoptists—

Mrs. G. M
Mrs. J. Sc

Speech Therapis

Area Nursing Officers—

Miss J. Reid, S.R.N., S.C.M., Q.N., H.V.Cert. (Southern Area).

Mrs. A. Steele, S.R.N., S.C.M., Q.N., H.V.Cert. (Western Area.)

Miss J. M. Till, S.R.N., S.C.M., Q.N., H.V.Cert. (Northern Area) (commenced 1.9.66).

NURSES QUALIFICATIONS CODE

1. State Registered Nurse (or Registered General Nurse).
2. State Certified Midwife.
3. Queen's Nurse.
4. Health Visitor's Certificate.
5. Registered Fever Nurse.
6. State Enrolled Nurse.
7. Registered Sick Children's Nurse.
8. Orthopaedic Nursing Certificate.
9. Diploma in Tropical Nursing.

School Nurses—

Full-time—

Mrs. E. M. Maguire, 1, 2, 8	Whitehaven
Mrs. M. E. Sansom, 1, 2, 5	Maryport
Mrs. B. F. Wilson, 1	Whitehaven
Miss D. Wise, 1, 2, 3, 5, 9	Workington

Health Visitors/School Nurses—

NORTHERN AREA

Miss I. Arnott, 1, 2, 3, 4	Burgh/Kirkbride (commenced 11.7.66)
Miss C. M. Bannan, 1, 2, 3, 4	Aspatria (commenced 11.7.66)
Miss M. M. Butler, 1, 2, 3, 4	Longtown
Miss E. M. Chalkley, 1, 2, 3, 4	Penrith
Miss A. Dixon, 1, 2, 4	Penrith
Miss T. Gibson, 1, 2, 3, 4	Penrith (commenced 31.10.66)
Miss E. Henderson, 1, 2, 3, 4	Penrith
Miss B. W. Knibbs, 1, 2, 3, 4	Brampton
Miss E. A. Lockhart, 1, 2, 3, 4	Brampton
Miss E. Mercer, 1, 2, 4, 5	Wigton & Silloth
Miss P. B. Simpson, 1, 2, 3, 4	Dalston/Thursby (commenced 1.4.66)
Miss E. Tongue, 1, 2, 3, 4	Brampton (commenced 1.7.66)

WESTERN AREA

Miss G. Davies, 1, 3, 4	Workington
Mrs. A. Donald, 1, 2, 3, 4, 7	Maryport
Mrs. B. L. Goodson, 1, 2, 4	Workington
Miss A. M. Greggain, 1, 2, 3, 4	Keswick
Mrs. M. Hewitson, 1, 2, 4	Workington
Miss A. Jackson, 1, 2, 4	Workington
Mrs. M. Lythgoe, 1, 2, 4	Cockermouth
Miss J. E. Surtees, 1, 2, 4	Workington
Miss S. Twigg, 1, 2, 3, 4	Maryport

SOUTHERN AREA

Miss I. M. Alcock, 1, 2, 4	Whitehaven
Mrs. I. E. Bowe, 1, 2, 3, 4	Millom
Mrs. S. Crellin, 1, 2, 4	Whitehaven
Miss E. Crosby, 1, 2, 4	Egremont
Miss M. E. Gibson, 1, 2, 4	Ennerdale
Miss R. A. Lodge, 1, 2, 4	Whitehaven
Mrs. A. Petch, 1, 2, 3, 4	Whitehaven
Miss R. Sheppard, 1, 2, 3, 4	Cleator Moor
Mrs. I. J. Smith, 1, 2, 4	Lamplugh and Frizington
Miss P. Walsh, 1, 2, 4	Egremont

All the above health visitors/school nurses are seconded to general practitioners.

School Nurses—

Part-time—

NORTHERN AREA

*Miss A. Bowler, 1, 2, 3, 4	Caldbeck
*Mrs. M. Dobson, 1, 2, 3, 4	Houghton/Wetheral/Scotby
Mrs. F. M. Hurst, 1, 2, 3	Bewcastle
*Mrs. M. McCredie, 1, 2, 4	Lazonby (part-time)
*Mrs. M. J. Mathews, 1, 2, 3, 4	Watermillock
*Mrs. C. M. Sinclair, 1, 2, 4	Hesket
*Mrs. M. E. Wilde, 1, 2, 3	Thursby

Clinic Nurse—Part-time—

Mrs. E. M. Stafford, 1

WESTERN AREA

*Miss M. Casey, 1, 2, 3, 4	Keswick
Miss S. J. Graham, 2, 6	Cockermouth
Miss M. Hadley, 1, 2, 3	Millom

Mrs. H. H. McCallam, 2, 6	Cockermouth
Miss M. P. Reynolds, 1, 2, 4	Lorton

SOUTHERN AREA

Mrs. J. A. Graham, 1, 2, 3, 4	Distington
Miss J. A. G. Hardie, 1, 2, 3, 4	Parton
Miss D. D. James, 1, 2, 3, 4	Seascale/Gosforth
Mrs. M. Marshall, 1, 2, 3	Muncaster

*Seconded to General Practitioners.

Dental Surgery Assistants—

Miss O. Bird	Miss E. A. Parmley
Mrs. M. Byers	Mrs. E. Plumb
Mrs. E. Hocking	Mrs. W. F. Reeves
Mrs. S. F. Kerr	Miss M. Rogan
Mrs. J. G. Nicholson	Miss M. I. Stout

GENERAL STATISTICS

The area covered by the Local Education Authority comprises 967,054 acres and the estimated population of the Administrative County in June, 1966, was 225,260.

The number of pupils on the school registers in January, 1967, was 38,651 compared with 38,743 in the previous year, a decrease of 92.

In January, 1967, there were in the county:—

		No. of Pupils
Nursery school	1	40
Primary schools	236	22,897
Non-selective secondary schools ...	25	9,490
Grammar, Comprehensive and Secondary Technical schools	11	6,133
Residential special schools ... ... (one for educationally subnormal boys, age range 9-16 years)	2	91
(One for educationally subnormal girls, age range 9-16 years)		
		38,651

THE DEVELOPMENT OF THE SERVICE

The major changes in recent years in the school health service have concerned the framework in which the regular, indeed one should say, continuous health supervision of school children should develop. This has taken the form of the introduction of more selective medical examinations, and recently in Cumberland in the streamlining on a more local area basis of the medical administration of the service. I believe the next step, as I shall explain more fully below, is the involvement of the family doctor in the work of this service.

Some anxiety has not unexpectedly been expressed by some teaching staff and others about the selective form of medical examination, the main concern centreing on the possibility of missing serious developing conditions in the children not examined. Some teachers have obviously felt the weight of their responsibility in their part in the selective procedures and no doubt this is a healthy sign. What I feel requires to be stressed is that a "selective" method of medical examination is not intended in any way to exclude a large section of children from the eye of the school medical officer and school nurse, but rather to facilitate a wider health surveillance "right across the board" for all children at school, through developing health education (jointly school medical officer and school nurse and teachers); and through the school medical officer and school nurse having more frequent contacts with the schools when they can survey broad problems of children in the schools setting, with teaching colleagues. Such subjects as the attitudes and practices of young people to alcohol, tobacco and other drugs are obtruding themselves with increasing urgency, and I am sure that the worlds of health and education will only adequately grapple with these in partnership.

Before, however, devoting and directing too much attention to these highly topical health risks to young people, it is clearly necessary to be satisfied that the older health menaces have really withdrawn and that they have not simply changed their form without their perils. Comment has frequently been made in annual reports on Cumberland's school children on the problem of obesity overshadowing its predecessor, under-nourishment. Yet only during the year 1966 was certain evidence adduced that too high a proportion of service recruits, at least in some parts of the country, are today showing signs of inadequate nutrition; and that confirmation has appeared that there is a distinct difference

between the nutritional level and rate of development of children of small families and those of large. Such investigations and research should contribute in an important way to the establishment of "risk groups" of children and so to the improvement of selective procedures in health screening. It is fascinating to recall that the school health service owes its origin in the early years of this century, to just such health observations on a different scale in recruits for the Boer War.

Thus it seems clear that a proper balance has to be struck between maintenance of a generally very satisfactory position with regard to the health of most school children, and a more comprehensive ecological approach to the whole child in the educational setting involving newer observations and research in close conjunction with schools' staffs on one hand, and the paediatrician on the other. I am grateful for the following comment from Dr. F. M. Elderkin, Consultant Paediatrician in East Cumberland. He touches on the question of the overweight child, as also does Dr. Ainsworth, whose contribution follows, and indeed also Mr. Barrow, Headmaster of Dalston St. Michael's School. Dr. Fletcher writes:—

"Co-operation between the school health services and the Paediatric Department of the Cumberland Infirmary has continued during 1966. A developmental clinic which is jointly staffed has been started dealing with children of borderline ability to attend normal schools as well as the backward child.

"In an endeavour to identify the obese child earlier the routine weighing and measuring of children at medical examinations has been extended, so that effective treatment can be instituted earlier.

"Because of the importance of the early detection of urinary infections and particularly the child with a symptomatic chronic urinary infection, microscopy of the urine should become part of the routine school medical examination."

Dr. Ainsworth, School Medical Officer, writes:—

" In previous reports we have noted that school children have seemed more advanced, more sure of themselves and more mature than several years ago. We have commented on their cleanliness, their better clothes and in some cases

obesity which we think could be due to the increased standard of living all round.

"These considerations have led me to observe girls who are maturing earlier. This is striking in the grammar, technical and secondary modern schools where many of them are young adults and can no longer be classed as children. In the course of a small survey on the age of physical maturing in one secondary modern school I have been led to think of many dietary factors as worthy of study in this connection. It may be that the standard of nutrition generally, and possibly individual factors in particular, e.g. amount of meat consumed, might be shown to be relevant here. There is a wide field of study open on such matters."

I think it is appropriate here to include the very interesting and stimulating comments of Mr. H. Barrow, Headmaster, St. Michael's School, Dalston—

"This year saw the introduction of the selective medical examinations in the Northern Area and I think that I am voicing the opinion of most of my colleagues when I say that it has been a success, although the full scheme, as outlined to a meeting of head teachers over a year ago, has not yet been completely implemented. I am sure that this meeting called by Dr. Leiper was very much appreciated. Teachers had the scheme explained to them by Dr. Leiper's staff and were given the opportunity to question and comment.

"It has been felt for some time that because of the general good health of the great majority of pupils, a selective examination would save a great deal of time and would be at least as efficient as the old scheme.

"In considering which pupils to bring forward for examination, I wonder what would be the reaction of the medical officer if he were to be presented with the overweight children which almost every school has these days?

"A generation ago the term malnutrition meant underfeeding and brought to mind underweight children, rickets, etc. This kind of malnutrition has now largely disappeared but we have another kind caused by over-feeding, and a badly balanced diet. Is this variety any less dangerous? Is it not true that such children, if allowed to continue putting on bulk will at the best have a much reduced ability to join in the games and sports which normal children enjoy, and at the worst have a drastically reduced life expectancy?

" It is sometimes my experience that the parents of these children fondly believe that their outsize offspring is an example of a fine upstanding school child and they are positively proud of the fact that he or she weighs 8 or 9 stones at age 10 or 11 years. Since such people resent the suggestion that they are feeding the child wrongly if it comes from a teacher or health visitor, I think that they should be seen at the annual medical inspection when the doctor can bring his authority to bear.

"For most heads of primary schools the medical examination in school means an apology to the visiting medical staff for lack of a suitable room and facilities. Those of us who have a staff room turn it over to the use of the doctor but it is usually too small to conduct eye tests. It makes one wonder how much the medical officer is consulted when schools are planned, when one learns that one of our modern secondary schools has a medical inspection room which is so sited that there is insufficient privacy for those being examined and that it is also too small to conduct vision tests.

" Might I here make a plea for new thinking on the siting of lavatories. My own school has recently had its 19th century external lavatories demolished and replaced by indoor modern ones. No one mourns the passing of the old ones, but I question the wisdom of siting the new ones between two classrooms. They can become pretty noisome on occasions and my own preference would be for lavatories sited a short distance from the class rooms and reached by a covered way. If the medical officer has no objections to this he might like to consider recommending it.

" I would like to end by paying tribute to the dental service. Children from my school go down to the nearby secondary school for treatment with the minimum of fuss which is its own tribute to the dental officer who holds court there twice a month."

I turn now to the question as to who the school medical officer of the future will be. The role of the traditional "specialist" school medical officer is coming increasingly into question as general practice reorganises and regroups. These movements in family medical practice are being accompanied by noticeable stirrings of interest in special group activities on a practice basis, mostly on an appointment basis—child welfare and immunisation sessions; cervical cytology clinics etc.—and why not an organised screening service of children on a practice basis? The concept of total patient care in the

community outside of hospital is now dominant, looking to the family doctor as the clinical leader of the family health team.

It is very clear that in the future, medical care in this country, outside of hospital, will be centred on family doctor groups working in health centres and supported comprehensively with nursing and ancillary staff who will, for the most part, be local authority employees. Meantime, the role of the medical officer employed by the Local Health and Education Authority is becoming more administratively orientated as all clinical services pass into the hands of the family doctor. Included in these services which he will provide for his patients will undoubtedly be screening tests for various diseases, as the value of these are progressively established. Thus family doctors will also assume much greater responsibilities in preventive medicine than they have had in the past. All clinical services previously given by the local authority now require careful rescrutiny in the light of this well established trend.

I have repeatedly indicated in annual reports on the school health service that this service, modernised by a more selective approach to the medical examination of children and by the inclusion of up to date services on such special subjects as audiology, fulfills a most important preventive medical role in the care of the health of the growing school child—one of the most important groups in the community. It is, in my view, right that the care of the health of school children should pass into the hands of the family doctor group, while the directly employed school medical officers, reduced in number, will become more specialised officers in certain aspects of the health of the school child, especially the handicapped.

I believe the development of close working between family doctor groups and teams of local authority nursing staff has so far developed in this country that the time is ripe for one or two pilot schemes in which groups of general practitioners would be employed on a sessional basis for the routine and selective medical examination of the school children. It will be readily understood that the difficulties are less where the catchment area of a school or group of schools is served for family doctor services by a single group of doctors in partnership. There is, of course, a steady move amongst family doctors towards this kind of larger team arrangement, based on health centres. Already I can visualise 17 to 20 such health centres coming into being in Cumber-

land. Pilot areas should be selected so that the large majority of children in the schools concerned have, as their family doctor, one of the group of doctors serving most of the population in the area.

One of the most important benefits deriving from the selective school medical examinations now practiced and in which school medical officers and school nurses are in the schools more frequently than previously, is the strengthening of links between the staff of the school health service and the teaching staff in the schools. This strengthening of direct professional communication is of undoubted benefit to handicapped children in particular, and to the total health care of the school child including health education. I would wish, therefore, that the first ventures in the sessional employment of family doctors in the school health service should be such that the doctors and nurses would maintain this frequent contact with the school. It may well be that it will be one of the doctors in the practice who has a special interest in children's work who will undertake the health care of the school children for himself and his partners.

It is appropriate, at this point, to include a word on the future functions of the "specialist" school medical officer who will either be a full-time officer or one whose services are shared with District Councils to which the doctor concerned is Medical Officer of Health. The clinical work of this medical officer in the future I see as mainly centred upon certain aspects of child health in which he or she will work very closely with the paediatrician and child psychiatrist as well as other hospital specialists such as the ophthalmologist and the ear, nose and throat surgeon. This smaller number of locally employed medical officers will have special responsibilities in connection with handicapped children including the diagnosis and management planning of the educationally subnormal and subnormal children. He will also be increasingly concerned with the paediatrician in developmental work with pre-school children. This latter is an aspect of child health which is obviously vital to the health of the school child. The local authority medical officer will also have special responsibility in connection with health education programmes in conjunction with the staffs of schools.

The above thoughts with regard to the employment of general practitioners in the school health service are being currently discussed with the Joint Sub- (Health and Education) Committee at the time of writing this report, and I

expect that it will be possible in my annual report next year to give some account of the first moves in this direction.

Medical Examinations

In 1966 the Northern and Western Areas of the County adopted selective medical examinations on the same basic pattern as had become established in the Southern area. It will be recalled that the main features of this system are the retention of comprehensive medical screening of all children at school entry and leaving, but the substitution for the previous routine "10 year old" examination of a continuous selective procedure between entry and leaving. An important feature of the latter is the completion of a questionnaire by parents when a child reaches 8 or 12 years; this forming a key factor in determining the child's selection or otherwise for examination at this stage. The schools are visited termly rather than annually and consultation with the teaching staffs contributes most valuably to the selective procedure.

If the table on Page 93 is studied it will be seen (leaving aside entrant and leaver examination) that there were still 800 children routinely examined at 10 years of age but at the 8 year old stage there were in all 2,481 screened by questionnaire of whom 926 were "selected in" for medical examination. This represents a smaller proportion than earlier experienced in the first area with selective medical examinations; and is probably more practical in terms of the operation of the scheme so long as no evidence appears of significant numbers of missed defects. In this latter connection, at the 8 year level, the percentage found with defects of those selected for examination was 17.6, a substantially higher figure than the more usual 10% in non-selective entrant procedures. This, it is to be hoped, is an index of successful selection of the needy cases and is so far encouraging. At the 12 year old selection level, however, just under one-third (681 out of 2,251) were "selected in" and of these the percentage with defects was 10.7. At the non-selective leaver examination the percentage with defects was 5.8. Thus the older age groups are proving less productive of defects; a fact which, without attempting to read too much into the figures, should be indicative of effective health care in earlier years. It should also be noted that of the "defects" found in the leaver group over a half (94 out of 177) were defects of vision; similarly at the 12 year old level (46 out of 72). In contrast, at the entrant examination the proportion of visual defects was nearer a quarter (97 out of 408) and at 8 years and 10 years approximately a third (56 out of 163; and 37 out

of 108). The importance of a careful watch throughout school life for visual defects is clearly demonstrated.

I quote now the comments of the Western Area and Northern Area Medical Officers on the first year in which they have operated mainly on the selective plan. Dr. Hunter, Western Area Medical Officer, writes:—

"As the new system was introduced in the third term of the year and already the routine work under the old system was well ahead I do not think sufficient time has elapsed to give very definite comments. However, both the school medical officers and school nurses agree that the selective system is resulting in a greater degree of co-operation and understanding with the head teachers and that this is likely to extend benefit to the pupil in his school life."

I am grateful also for the following thoughtful appreciation by Dr. A. Hargreaves, Deputy Western Area Medical Officer, who has joined the medical staff of the authority during the past year:—

"Most workers in this field are agreed that the system based on the physical condition of the school child of some 50 years ago is scarcely suitable for the present day, yet such is our deeply ingrained love of tradition and fear of change that school medical procedures have in many areas altered but little in their basic method and arrangement since before the First World War.

"It is not out of place to remind ourselves that we have had in existence in this country for the past 18 years (a longer span of time than the lives of our school children) a National Health Service wherein any individual resident in the United Kingdom may seek medical advice and receive treatment at any level quite free from direct payment—an institution most enthusiastically supported by the public at large. Buttressing this is the background of a standard of nutrition, housing, and sanitary conditions higher than anything previously known and in complete contrast to that obtaining at the turn of the century. It is therefore small wonder that the overwhelming majority of our children enjoy a state of superb good health.

"It is in this perspective that procedures for the medical inspection of school children must be examined. The aim of such inspection must be to ensure the health of the school child without time wasting duplication and overlapping of

activity with all the frustration on the part of parents and child and irritation on the part of professional workers that otherwise so frequently results. Also the aim of any procedures must be to be both useful and constructive—there seems little point in simply examining hundreds of children just so that we can congratulate ourselves that we have hundreds of healthy children, gratifying though this may be.

"Accordingly I have the following observations to make:—

"There should be an opportunity for a comprehensive check of every child at the point of entering the school so that we know what kind of basic material we will be dealing with over the next 10 years, and also to pick up the child who might not have been examined by a doctor.

"There are at least three often unrelated faults—vision, hearing and speech—which are of paramount importance to the child, and where minor defects (not noticed by either parent or child) may make a major difference to the child's ability at school and general enjoyment of life. Checks of these should therefore be made on every child at frequent intervals.

"These imply that routine examinations of every child—one comprehensive, and several limited, in scope—are still necessary—hence my mention of partially selective procedure.

"The defects that may arise during the life of any individual fall basically into two categories—defects arising from developmental and environmental faults (often unrelated), and defects resulting from illness or accident. These two categories obviously include mental and behavourial defects and disorders as well as physical. Of these defects some are serious and incapacitating; some capable and some incapable of responding to treatment; some are first noticed by the parent, some by the child, others by the family doctor, the school teacher or the school doctor.

"Clearly only some serious and significant defects will initially be brought to light by the school medical officer at medical inspections. This fact combined with an initial comprehensive screening at entry; plus periodic checks of vision hearing and speech, and a selective system using appropriately spaced questionnaire to parents, may well expect to encompass the great majority of significant defects.

" The relative effectiveness of 2 or 3 routine inspections and a partially selective procedure can really only be decided as a result of careful statistical comparison of the two systems on similar groups of children in similar environments plus further detailed analysis of the defects brought to light. However partly from personal experience and partly from the various studies that have appeared from time to time in the reports of the Chief Medical Officer to the Department of Education and Science, my own opinion is quite firmly that the second system is not only just as effective as the traditional, but well operated it can be made much more effective, and should certainly lead to closer collaboration between the parent, the teacher, the family doctor, and the school medical officer."

Dr. Rogers, Northern Area Medical Officer, makes the following comments:—

" I think it is difficult to come to any definite conclusions about selective medical examinations after only one year. Approximately one-third of all children involved in the selective scheme have been examined. This seems a reasonable number to be selected from the questionnaires. One point in favour of the system is that more children have been referred for treatment which suggests that the method is working advantageously. It is difficult to compare the statistics of 1965 with 1966 as different age groups are involved (eight and twelve year olds instead of ten year olds)."

One of the full-time school medical officers, Dr. Ainsworth, who has been very active in the first year of carrying out selective medical examinations in the Western Area writes as follows:—

" In the very large schools, e.g. grammar, large secondary modern, where the curriculum is so full, the school so large and the staff so busy and fully occupied with such a varied syllabus, contact and getting information in any amount was not possible. Now with selective medical the preliminary visit before medical inspection has given us a means of obtaining more information in these schools about pupils that staff are worried about and hence has brought more problems to our notice.

" We already have had this useful liaison in the smaller schools—junior and infants—as the schools are so much smaller and the staff have more time to see us and talk to us. Information has in the past passed freely to us, hence in

junior schools I feel selective medical inspection has not been a means of giving us much more actual information or even more contact than we already had."

"It has appeared so far that information from selective medicals has brought more previously undiscovered educational and psychological disturbances to notice and of course this trend towards finding more educational and psychological problems has become more obvious during the last few years."

"Lastly, one finds the parents are very co-operative at selective medicals and are willing to look for help and bring their problems forward to us."

"Against selective medical inspection one always fears—as many head teachers have remarked to me—that 'a child needing attention might slip through the net'."

I believe that a sound basis has been laid in the selective procedure, for the next stage in development of the service, namely the beginning of the involvement of the general medical practitioner in medical examination. I have already dealt with this in some detail earlier in this report. The very fact that the doctor undertaking the examinations and health supervision of the child in school, is also the family doctor should introduce to the selection of children the best informed of all opinions on the individual child's requirements. In many cases the doctor concerned will have close medical knowledge of the child from infancy and not infrequently his attached health visitor will similarly have long knowledge of the child and his home. This represents real progress towards comprehensive and unified patient care in the community.

The Work of the School Nurse

The concept of school medical examination work being carried out by family doctors immediately demands a rethinking of the part to be played by the school nurse. Certainly in the pilot areas mentioned in the introduction to this report which it is hoped will see the first of family doctors working in the school health service, these doctors will carry out their school health work with the assistance of the same team of nurses as they have for all other work; and whichever member of that team deals mainly with help-

ing them in the schools will develop a completely new slant of school nursing based on the group practice. I have in the past expressed some disappointment in connection with the difficulties in using seconded health visitors to the greatest advantage in school work. It is now becoming clear that the answer to this rests in the part played by the family doctor in the future . The areas in which it will be most difficult to ensure that the nurse or health visitor seconded to a particular practice deals with the children of that practice in the schools are the larger towns where more than one group practice serves families in a central area which is also served by large central schools. Changes in general practice are coming along so fast however that other facets of this problem and no doubt other solutions will present themselves in due course.

During 1966 the first appointment was made in one of the largest schools in the county of a nurse to function, at least to some extent, as a school matron. This is only a part-time appointment and I believe its success will depend on the nurse concerned being closely integrated with the work of the school health service generally and playing a full part in health screening and health education activities in the school. There is always I believe the danger of a person in this situation adopting a negative rather than the above-mentioned positive approach to the health of the children, and merely becoming a dispenser of simple medicines such as aspirins. I am sure the present appointment will in time teach many things as to how a school matron type of appointment can best serve the children of a school.

Thus the picture of school nursing in general is changing, and many of the old traditional jobs of the school nurse have by no means disappeared or lost their value, although they will be carried out in future in an altogether more helpful setting. This section of my report on school nursing used to contain mainly comments on the patience and painstaking work which these nurses did in controlling head infestation, and I have commented briefly on the wisdom of reducing the numbers of examinations for this condition, while maintaining adequate protection of the majority of children from the minority who persistently offend in this respect. Mrs. McCallam, school nurse, taking a very wide angled view of her work, comments as follows:—

"With very few exceptions I find the school children of today are healthy and happy and, without being presumptious, are confident. A few families who were persistently

verminous are now satisfactory, probably due to better housing conditions. Also a few families have now new dwellings, and as the children get older they begin to take greater pride in themselves. Parents are usually co-operative and follow instructions re cleansing and keeping of appointments, and now I am cordially invited into homes where before the atmosphere was not always so favourable. I have not had much experience with selective medical inspections but am looking forward to school medicals, in fact to all the duties involved."

Similarly Miss Wise, school nurse, writes—

" Children today are much healthier physically, but we tend to get more psychological problems in all age groups regardless of environment. A child may come from a good home and have sensible parents, or be one of a large family and deprived.

"Verminous heads continue to decrease; even the most persistently verminous families are clean with constant supervision and the supplying of Lorexene shampoo.

" I find a marked difference in the attitude of these children; they appear to be happy and confident, their school work improves.

" Home visits are still very important. We gain the confidence of the child and parents, and will discuss other problems they may have regarding the children, e.g. bed-wetting, child unhappy at school. These they do not always mention at the school medical.

" We had three schools last term which had selective medicals. I think it will be very interesting going with the doctor each term to the schools.

" We have quite a good liaison with the School Attendance and Welfare Officers. During the course of the year I have asked them for help with some of my school children —about clothes, shoes, etc.

" I must say how very much a lot of our school children from poor homes, look forward each year to the two weeks holiday at Allonby Sunshine Home".

The number of children shown with head infestation was 712 during 1966. This represents some further improvement on the previous year and is associated with a still further slight reduction in the total number examined but a corresponding intensification of watch upon those families known to be particularly troublesome in this direction.

In the spring of 1966 a very useful residential course, under the general title of "Communications", was held in Cumberland. This was attended by health visitors and administrative nursing officers from local authorities, as well as by ward sisters and administrative nursing officers from hospitals. Many aspects of nursing affecting the school health service came under scrutiny and there was no doubt that a great deal was learned by all concerned in terms of mutual understanding of hospital and home nursing of both children and adults. Communications between hospitals, groups of family doctors and their nursing teams and through them what is appropriate to the staffs of schools can be of great importance to the individual child in his school life. As with many other matters mentioned in this report this move towards improved communications is but one evidence of a strong movement towards unification in the health services generally.

There is no doubt whatever that one of the most important functions of the school nurse is in the field of health education and Miss Mansbridge, retiring Superintendent Nursing Officer, expands on this theme on the section of this report dealing with Health Education.

Mrs. Sansom, school nurse, writes—

"On taking over the 20 schools allocated to me and conferring with the head teachers re routine cleanliness inspections etc. I found the majority preferred for the present time to continue having an inspection once a term. This I have continued to do following up with home visits to parents in connection with infestation or other problems found—followed again by re-checking at the clinic or in school. I find a small nucleus of families who have apparently always been a problem in this field, but whose numbers are slowly reducing.

"We commence this term with the selective school medical inspections. I have visited along with the school

medical officer—all the junior schools and the secondary modern schools in our area to discuss this with the head teachers, who are happy to co-operate, and lists are now coming in of problems to put forward for selection. I am sure in this way we will get to know the children much better and be able to follow them through to a conclusion by seeing them more often.

" In recent months there have been a number of cases of infective hepatitis in the area. A trial of gamma globulin is being carried out in some of the schools by the school medical officer by arrangement with the public health laboratory service."

Employment of Children Bye-Laws

The figures below show the numbers of children examined during the year in accordance with the above bye-laws:—

Total examined during the year ...	233
Total number of children involved ...	202

Examined for the first time.	Re-examined once.	Re-examined twice.
202	35	Nil

School Clinic Work

The centre for most of the work which has in the past been carried out in school clinics will in future be the health centre or other group practice centre as far as minor ailments are concerned, and as mentioned in connection with special services on page 30, hospital specialist units for ophthalmology, audiology, etc. work. In fact the school clinic and the child welfare clinic, will in future be more and more centred in the premises from which family doctor groups work.

The figures are once again shown below of the numbers of children attending the clinics and shows a continuation of the trend over a number of years towards smaller numbers attending school clinics.

Once again the most significant clinics have of course been the dental clinics and this subject is dealt with by Mr. Neal, Principal School Dental Officer, on page 72.

Clinic.	*New Cases.*	*Total Attendances.*
Anthorn	3	4
Aspatria	13	14
Brampton	7	11
Cleator Moor	4	4
Cockermouth	—	—
Dalston	—	—
Egremont	6	8
Frizington	—	—
Houghton	—	—
Keswick	—	—
Hunsonby	—	—
Longtown	6	7
Maryport	95	164
Millom	14	15
Penrith	10	14
Whitehaven (Mirehouse) ...	—	—
Whitehaven (Flatt Walks) ...	61	99
Whitehaven (Woodhouse) ...	15	35
Wigton	30	33
Workington	97	201
	361	609

"The Audiometrician"

"The Orthoptist"

SCHOOL CLINICS

Defect Code No.	Conditions for which child attended.	New Cases 1966	1965	1964	1963	1962	1961	Total Attendances. 1966	1965	1964	1963	1962	1961
1.	Cleanliness	5	—	1	11	—	1	5	—	1	16	—	7
2.	Infestation	—	2	17	2	—	6	—	9	34	2	—	13
4.	Skin diseases	59	36	88	147	597	524	103	62	195	408	1891	1867
5.	Eye diseases	76	119	145	169	303	298	138	212	186	316	729	698
6.	Ear conditions	81	87	110	78	64	63	157	208	163	105	213	233
7.	Nose and throat conditions	7	14	25	44	50	37	7	20	53	68	80	77
8.	Speech defects	19	26	17	21	34	22	20	30	19	22	43	26
9.	Lymphatic glands	—	2	—	3	16	3	—	2	—	4	21	7
10.	Heart condition	1	1	1	3	2	2	2	4	1	3	11	4
11.	Lungs condition	3	4	6	18	37	23	4	6	6	26	358	51
12.	Developmental	3	1	2	2	6	2	5	4	3	5	13	8
13.	Orthopaedic	37	38	36	46	105	35	38	49	47	48	165	54
14.	Nervous system	6	6	20	2	5	7	17	8	70	3	32	12
15.	Psychological	18	18	13	12	25	16	21	26	21	17	45	29
16.	Abdominal condition ...	4	5	5	13	15	5	4	9	9	16	25	8
17.	Other conditions	42	56	103	103	244	356	88	69	237	188	541	856
		361	415	589	674	1503	1400	609	718	1045	1247	4167	3950

SPECIAL SERVICES

Over a long number of years, certain clinical specialities have had special links with the school health service, and clinics have been organised by the specialists concerned for school children. This relationship has undergone certain changes in recent years associated with the increasing centralisation of hospital specialist services, itself a development resulting to some extent from increasing sophistication of equipment. Specialists naturally prefer to offer the best service possible to school children and in many cases this appears to require attendance at hospital clinics, rather than as peripheral school clinics. It is true that some of the disadvantages of children attending hospital outpatient clinics can be minimised by the arranging of special children's clinics in well organised outpatients departments away from the treatment areas of the hospital. The time taken, however, is often longer and care must be taken that communication with the schools is not impaired. The importance of the latter point lies in the fact that the specialities affected are those concerned with defects which have an important bearing on education, namely visual, auditory and behavioural difficulties. Thus a shift towards hospital seems inevitable generally for many such clinics, while school medical officers strengthen their links both clinically and administratively in these specialities.

In October 1966, Cumberland's first local residential refresher course for medical officers was held at Underscar in Keswick. The main medical specialities linked to the school health service figured largely in the course. Medical officers attended from local authorities mainly in the north of England and south Scotland, as well as from Cumberland. Lectures on physical and psychological development were given by Dr. Dorothy Egan, Principal Medical Officer, Greater London Council, and Dr. I. Kolvin, Consultant Child Psychiatrist, Newcastle General Hospital, respectively. Professor I. G. Taylor and two colleagues from the University of Manchester Department of Audiology and Education of the Deaf provided a highly instructive and fascinating day on many facets of assessment and interpretation of hearing impairment, including the needs of parents. Then Professor J. M. Tanner, Institute of Child Health, University of London, informed and delighted us on "Growth and Development of the Schoolchild", the subject which he has made so uniquely his own.

Two study days for medical officers were also held during the year, one featuring mainly developmental work

with young children and using the very instructive linked tape recordings and colour slides produced for the College of General Practitioners by Dr. Mary Sheridan. On another occasion a preview of Professor Tanner's film on child development was helpful in anticipation of the Keswick course.

I am glad that the first secure link with one of the consultant paediatricians in the county has been made by Dr. Timperley in the Northern Area, who is now working with Dr. Elderkin in child developmental clinics at the Cumberland Infirmary.

Audiology Services

During 1966 we welcomed to the county Mr. F. C. Robson, Consultant Ear Nose and Throat surgeon. He replaced Mr. W. J. O. Page, who had served the school children of Cumberland so wonderfully over so many years. I am greatly encouraged to know of Mr. Robson's great interest in audiology work, and I hope that in spite of the many pressures upon his time it will be possible to arrange special consultative sessions with the school medical officers dealing specially with audiology matters, and with the teachers of the deaf.

In 1966 a complete review of the audiology service was made. There was a widely ranging discussion of all aspects of the service with the school medical officers most intimately concerned, the teachers of the deaf and the audiometricians. It was generally agreed that broadly speaking the service was on the right lines being based on the screening of all infants by health visitors and the audiometric testing of all school entrants. One of the main questions at issue was whether only those school entrant children known to be at risk for some reason should be tested, but experience so far has indicated that it is not particularly in this group that hearing defects have been found and certainly until greater confidence could be put in the selection of children for the 'At Risk' register it seems advisable to continue screening of all entrants. It will be of great interest in 1967 to compare a cohort of school entrant children in respect of their infancy examination and now their school entrant testing.

A point made with some satisfaction was that general practitioners, all of whom now have local authority health visitors attached to them, are more frequently referring children for audiometric testing. It was agreed that greater

attention was necessary to the construction of buildings and rooms in which audiometric testing was to be carried out. Some of these are very badly situated in schools.

An important principle which emerged very clearly from Professor Taylor's contribution to the school medical officers' course was the fact that audiometric testing of young children should be regarded as but one facet of a wide ranging developmental examination and follow-up. In other words it seems clear that the pioneering work done in audiometry of children is fitting into a natural place now in the expanding field of developmental paediatrics. This has been well illustrated during the year with reference to one or two individual children for whom it has been necessary to mobilise a very complete team of experts in order to elucidate the child's difficulty. In the case of one such child there was, and still to some degree is, a divergence of expert opinion as to whether he is significantly deaf or not—a child with a serious psychological defect and coming from a home where mental illness in the parents has been a complicating factor. In this child's case the consultant paediatrician, school medical officer and peripatetic teacher of the deaf together visited the child's school in order to try to elucidate his problem. The help of Professor Court at Newcastle and Dr. Kolvin, the Consultant Child Psychiatrist has been sought and the child is at present under the residential care of the latter experts.

A further advance has been the extension of improved equipment, mainly in the form of speech training units, partly on a loan basis from the Variety Artistes' Federation of Great Britain, who do a great deal for deaf children, and partly county owned units. This is commented on later by Mr. Abbott, peripatetic teacher of the deaf.

I include in this report once again the comments of each of the Area Medical Officers or their assistant medical officers who take special interest in audiology work. The statistics are shown on pages 44 and 45 in the same form as last year, which seems to give a fairly quick view of the main groups tested. The proportion of school entrant children with an apparent loss at first testing is similar (14.9% compared with 12.7%) to last year, although in the Western Area the proportion requiring investigation was higher.

Dr. Hunter submits the following report from the Western Area—

" The detection of deafness in the infant and the school-child keeps to the same pattern, i.e. the simple screening of infants in the home or clinic by the Health Visitors and of the school-child by the audiometrician. In difficulty the peripatetic teacher of the deaf is always helpful, especially in the younger cases. In any one case of primary ascertainment the health visitor, the teacher of the deaf and the medical officer may all play a part. Follow-up of established loss of hearing is carried out in the child welfare or school clinic, in the ear nose and throat clinic of the hospital, in the school and in the home, or even in the workplace by the teacher of the deaf who supervises young persons for two years after leaving school.

" The procedure in school is the application of pure-tone audiometric screening to all entrants. As explained in the report for 1965, it is not yet possible to correlate school findings with the 'At Risk' register, which was begun in 1963, but a number of cases were investigated via the birth registers. No likely causative factors were found in the group (40) but as this may have been due to lack of information in the birth register it was thought better to discontinue the search until the 'At Risk' register can be used. In the special group of children (20) ascertained because of educational subnormality no case of significant deafness occurred.

" A total of 1,586 entrants were tested in schools in the Western Area and of these 195 (12.3%) were found to have an apparent loss (see also Table I). On testing for the second time, or in a few cases for the third, after a period of around eight weeks, the number with residual impairment of hearing was reduced to 135 (8.5%). This reduction in number from those with apparent defect to those requiring further investigation has been a constant feature in the findings since routine testing was applied. The difference, and the variation in difference, may be largely accounted for by temporary infection producing a period of deafness.

" In addition to the routine cases, there were 63 straight referrals for suspected deafness and 20 tests were carried out in children about to be ascertained because of educational subnormality. (See Table II).

Findings in New Cases—1966.

Cases from Routine Audiometry

" Of the 135 routine cases 120 were of mild degree (62 unilateral losses and 58 bilateral); eleven cases were of

moderate loss (6 unilateral and 5 bilateral); and four cases of severe degree were all unilateral.

" All four severe cases were referred to the school medical officer who in turn referred one case to the family doctor because of otitis and two to the otologist. The latter reported one case to be due to mumps and not amenable to treatment, and the other due to old conductive changes. The fourth severe case was referred to the medical officer late in the year and is still under investigation.

" Of the 6 cases of moderate deafness (unilateral) one was found to have otitis media but already attending the otologist; one was diagnosed by the otologist as a case of secretory otitis media requiring surgical treatment; one was a simple case of wax; and three cases were improving under observation. Of the five bilateral cases one had a subacute otitis media which was further referred to the family doctor; one had wax; one was a case of high frequency deafness already found to be attending the otologist; and the remaining two cases had not come forward yet to the medical officer.

" Of 33 cases of mild unilateral impairment who were referred to the medical officer, four cases of otitis media were discovered and referred to the family doctor; wax was cleared in three cases; two were already on the waiting list for removal of tonsils and adenoids; two were cases of long standing but quiescent otitis; catarrhal conditions were present in four cases; in three nothing abnormal was found; five were further referred to the otologist; and the remaining cases had not yet been seen or reported on by the end of the year. The otologist found nothing abnormal in two cases; one was already known to him; one had a catarrhal condition requiring observation only; and one required the removal of tonsils and adenoids.

" Twenty-nine cases of mild bilateral impairment were referred to the medical officer. Eight cases were of the high frequency type with no special factor presenting and requiring only observation at present; three had quiescent otitis media; two had wax; two were catarrhal; one had marked adenoids; one had a sinus infection; and in the remaining cases results of examination were not to hand at the end of the year. One case of sinusitis and one of adenoids were referred to the otologist and reports were awaited for other two cases also referred.

CASES BROUGHT FORWARD SPECIALLY IN 1966

" One case of severe unilateral deafness was referred by the head teacher. This was a boy in the educationally subnormal range and the high frequency deafness probably resulted from infection (? viral) according to the otologist. A second case in this group involved total loss in the left ear resulting from one or more of three incidents occurring in a short period—a meningeal illness, mumps, and injury to the head.

" Six cases of unilateral moderate deafness were referred. One case of otitis media required the removal of tonsils and adenoids; one had secretory otitis media and required antral lavage; one was a simple case of wax; and the other three were being elucidated at the end of the year.

" Six cases of bilateral moderate deafness were brought forward. One had active otitis and was referred to the family doctor; one was a case of wax; one backward boy (referred by the teacher of the deaf) required further investigation; one was a case of high frequency loss requiring further observation; and the remaining two also awaited further tests.

" Among eight unilateral and four bilateral mild losses eight were referred to the medical officer and two further sent for an opinion by the otologist.

" No case of significant deafness emerged from the preschool children brought to notice by health visitor, parent or medical officer but eight are under observation. One preschool child from the previous year was fitted with a hearing aid in 1966 and is now attending school. His loss is between moderate and severe in both ears.

"The second of two cases requiring hearing aids in 1966 was that of a boy of school age with a history of prematurity, backwardness and poor speech, although it is possible that measles or mumps played a part in etiology.

" During the year 136 cases were taken off observation or had left the area and at the end of the year the total mild to severe cases in the area under some form of treatment or care was approximately 300. Of these 27 were severely deaf in one ear; and 21 were severely or profoundly deaf in both (five being in special schools for the deaf or partially hearing and sixteen attending ordinary schools). The range of disability covered by hearing-aids includes also a varying number of moderate losses and improvement in hearing

would in some severe cases appear to improve by the use of an aid.

From the Southern Area, Dr. Walker writes—

"In 1966 in the Southern area, 1,448 routine hearing tests were done on the entrant groups and 148 (10.2%) of the children were found to have an apparent loss. On retesting these after a period of several weeks only 67 (4.6%) were found to have an actual loss. Of these exactly half had a bilateral loss and half a unilateral loss. No severe cases of deafness were found and only 5 children had a moderate degree of bilateral loss.

"From the entrant groups 38 cases were referred to the school medical officer for special examination at the school clinic. Two were found to have sufficient wax to account for their hearing loss and were referred to their general practitioner. One was found to have an active infection requiring treatment and was also referred to the general practitioner.

"Nineteen cases were referred to the otologist for an opinion. Of these 6 required removal of adenoids or tonsils, 2 required myringotomy and 4 were kept under observation by the specialist. Two had severe unilateral loss for which there was no treatment.

"The school medical officers were asked to see 17 special cases. These were the children who had been discovered at the school medical inspections with ear infections or who had been referred for deafness by the parents or teachers. Of these cases, one was referred to the general practitioner, and 14 were referred for a specialist opinion. Six required removal of tonsils or adenoids. Five required myringotomy and 3 had a permanent loss for which there was no treatment.

"In addition to these cases there are 22 children from the area who are in ordinary schools and who are using hearing aids. Their progress was reviewed. We have 4 children of pre-school age who have hearing aids and these have been kept under observation.

"There are 10 children from this area in schools for the deaf."

Mr. Abbott, peripatetic teacher of the deaf, serving both the Western and Southern Areas of the county gives the following details of his work. I am particularly glad that he

has included an account of his work with hearing impaired school leavers. The carry-over of care into the immediate post-leaving period is a very valuable feature now of the work of the teachers of the deaf. He reports as follows—

PRE-SCHOOL CHILDREN

" During the last twelve months four new cases have come under my care, and one boy with a relatively minor loss has left the district. The first of these four children was deafened by meningitis and obviously had a moderate loss, but after eight months his hearing has returned to normal. The second child started school in September after wearing his aid for five months and he is now making good progress and has integrated well. The latter two children both of whom are very young, have other obvious difficulties in addition to hearing loss. Progress has been extremely good indeed with two of the children; as yet it is too early to comment on the latter two children although good progress is rather doubtful because of additional handicaps, the last child goes to a residential school for the deaf in January. This particular child has had innumerable difficulties ranging from soft 'pixie' ears which makes wearing an aid difficult; hospitalisation for tuberculosis; a broken leg; and not least amongst his difficulties—rather low intelligence.

" It is interesting to note that four of the five pre-school children currently under my supervision (see table below) have other handicaps in addition to a degree of deafness.

1966	
Profoundly Deaf	2
Severely Deaf	1
Partially Hearing	2
	5

" The last year has been a satisfactory one in relation to equipment; with county owned auditory training units plus the ones kindly provided by the Variety Artistes Club of Great Britain, all the children in need have benefitted by the use of the machines. During the year under review, sixteen pre-school children have been referred for my assessment, over half of these have caused me some concern before I was satisfied that they had not significant losses.

Pupils in Special Schools

"Currently there are fifteen children from West and South Cumberland in residential schools for the deaf and partially hearing outside the county. I again arranged to see all of these pupils during the annual summer holiday.

Children with Impaired Hearing in Normal Schools

"At the time of writing thirty-five children are under my supervision in West and South Cumberland, two of these are in a junior training centre the rest being in local schools. With one exception all the children have the usual Medresco air conduction hearing aid, the girl who is the exception having a bone conduction model for physical reasons. Additionally the parents of two of the older girls have purchased commercial post-aural models for the obvious cosmetic reason. Currently ten of the children are not using their aids because of improvements in their hearing, none of these has more than a minimal loss and in some cases the hearing is now well within normal limits.

"Two children of school age have had an initial issue of a hearing aid during the year. One of these has since left school, as have a further four users of hearing aids. These five leavers have all found employment in the area. Two further children using aids have moved to other authorities.

"The following table shows the average hearing loss for speech on the better ear, pure tone audiometry being repeated at approximately six monthly intervals. Although it is the accepted way of averaging hearing loss it does not take into account the high frequencies such as 4 kcps. and 8 kcps. which add to the child's difficulties, particularly from the speech point of view.

South and West Cumberland.

Up to 30 decibels	10
30 to 40 decibals	10
40 to 50 decibels	10
50 to 60 decibels	3
60 decibels +	2
	35

"Supervision has been carried out along the following lines with these children:—

1. Supervision which includes auditory training and use of the hearing aid, favourable classroom position with reference to hearing and lip reading, checking of hearing loss, speech, etc.

2. Remedial work which is mainly for language and reading difficulties.

3. Specialised work such as speech improvement and lip reading exercises.

Hearing Impaired School Leavers

" Two girls have left special school during the last twelve months. The first girl left at Easter and a post was obtained for her at a suitable place of employment but being totally deaf she found the lack of social contact very trying and the Youth Employment Officer concerned found her other employment where she has contact with similarly handicapped young women, additionally of course, other employees of the second firm are much more used to communicating with this type of handicap. This move has proved an unqualified success, close contact with the family concerned being maintained.

" The girl who left at Christmas was unable to obtain vocational training for her aptitude and ability at the residential school concerned and in consultation with the Area Youth Employment Officer it was felt that a suitably organised course at the Business Department of Workington College of Further Education would in fact fit this girl out for a suitable post in the future. I am positive that this is a move in the right direction in this particular case.

" Five children with impaired hearing have left the normal school system during 1966 and all have again been found employment commensurate with their talents.

" Close liaison with the respective area Youth Employment Officers has been maintained, in fact discussion about the children in residential special schools starts twelve months before the date of leaving. Two or three meetings are held between the interested parties and usually the child visits the Employment Bureau at holiday time at least once with parents and myself in attendance. Follow up, after actually starting work is done at intervals too, in some cases I have been invited by employers to visit the young person at work and I have found this very interesting."

Finally Miss Cronie, peripatetic teacher of the deaf in the Northern Area, writes as follows:—

"In June, 1966, the last school Ear Nose and Throat clinic brought to a halt for the time being the close co-operation with the Ear Nose and Throat specialist which has been an outstanding feature of the service for hearing impaired children in the Northern Area. In the remaining months of the year, the number of children under observation increased markedly.

Pre-School Children

"In all, 51 children have been seen; in many cases these were babies who passed a screen test of hearing after having failed three routine tests. Sometimes the children were seen at home but on many occasions it was necessary to test in a local clinic because of conditions unsuitable for testing in the home. Seven children are still under observation and two others have presented with losses of hearing. One, a four-year-old boy, has undergone several operations and now appears to have a severe permanent loss in both ears. He has an auditory training unit for full-time use at home. The second, also a four-year-old boy, is currently under observation until further medical treatment has been carried out.

"Two children have been removed from the pre-school group in my last report after treatment and testing. One is currently under observation for speech development assessment while a fourth has moved into the school group.

"The remaining children, two three-year-old boys, continue to progress. Each wears a Medresco aid and each has the full-time use of an auditory training unit.

Profoundly deaf	1
Severely deaf	2
Partially hearing	1
	4

Pupils in Special Schools

"There are seven children in residential special schools outside the county. They were all seen during the summer holidays. One boy with a dual handicap is not making satisfactory progress at his present school and is now awaiting transfer to a school for deaf children with a mental handicap.

"Forty-eight children are under supervision in schools in the Northern Area. Of these, 23 have Medresco aids and 25 are under observation. This larger number is accounted for by the number of children, with hearing losses significant enough to constitute a handicap, who are on the waiting list to see an Ear, Nose and Throat consultant.

"Class teachers have been very understanding and most co-operative in seeing that these children have extra help and preferential seating, although with group teaching methods this is no longer a simple matter of 'a seat at the front'. With some children, several changes of seating have been necessary to find a place suitable for child, group and teacher.

"One county girl, now in attendance at a city school, but under my supervision as a pre-school child and in her first year at school, has now transferred to the city peripatetic teacher of the deaf. Special arrangements had been made for me to see her in school during her first year and I am grateful to the Directors of Education for Cumberland and Carlisle and to the headmaster and staff of the school for the way in which this transition was made possible. The girl has settled extremely well and is making good progress at school.

"I would like to stress the advantages of the close co-operation that exists between the city and county teachers of the deaf, particularly when children are transferred. Obviously children settle more quickly when details of their special requirements are known at the time of their arrival at a new school.

"Three children have been issued with hearing aids this year. These have proved of great value to the children, two of whom wear their aids full time; the third wears hers at school only.

"Eleven children have had regular remedial help, particularly with English language and reading. Visits to all children have included auditory training, and, where necessary, help with speech-reading and speech improvement.

"Audiometric tests have been carried out at regular intervals. The following table shows the average loss over the main speech frequencies in the better ear in pure-tone audiometry.

Up to 30 decibels		21
30-40	„	13
40-50	„	7
50-60	„	3
Over 60	„	4
		48

Dr. Timperley contributes the following report from the Northern Area. She includes a very interesting comment on the possible significance of the order in which a child's ears are tested.

" During the year a total of 2,819 screening tests were carried out of which 16% were found to be defective at first test. The relatively higher proportion of defective results (20.4%) in the 2,014 entrant group (Fig. I) have been mainly of a minor degree and often due to transient upper respiratory infections as is shown by the small number of children (9.6%) requiring further investigation. A rather interesting finding emerged from this. In one school where there had been a great prevalence of minor defects associated with nasal obstruction a vigorous and frequent hanky drill was introduced and this has produced a marked reduction in the number of children requiring re-tests. Testing of the 9-10 age group started last year was completed. Of 295 tested, 30 were found to be defective—an incidence comparable to the other age groups with the exception of the entrants and no major loss was discovered.

" As previously, routine screening of all children transferring from other schools below the age of 11 was continued. Of a total of 805 children in the age group (9-13 years) tested, 111, i.e. 13.7% were found to be defective at first screening.

" Of the 226 'Specials' tested, again a high proportion were found to be defective in varying degree. Although only 3 were referred directly by a general practitioner, it is probable that in fact others in which deafness had been suggested were referred indirectly via parents and/or teachers. (It has been rather difficult to separate these numbers). It would therefore appear that family doctors are becoming increasingly aware of the value and are taking advantage of the service, to ensure that hearing losses developing after the routine entrant screening are detected as soon as possible.

" It is gratifying that no unsuspected hearing or visual defects have been found in either children regarded as educationally subnormal, or those in whom their school work is below that suggested by their I.Q.

" One rather disturbing factor which has emerged recently is that although there did not appear to be any increased incidence of hearing losses associated with the measles and mumps epidemics of 1965, during the end weeks of 1966 at least one possible unilateral loss (? following mumps) and 2 persistent ones after measles have presented themselves. This may be merely due to the vastly increased incidence of both illnesses in the summer and autumn terms, but the position is being watched.

"Normally the procedure for screening is for the right ear to be tested first which might be expected to give a predominance of (R) unilateral losses at first testing due to unfamiliarity with the procedure. However, in children screened up to October, of a total of 192 children with unilateral losses the proportion of R : L was 1 : 1.5. During the latter part of the autumn term, the left ear was routinely tested first. A total of 41 children with losses gave the rather surprising result of R : L was 1 : 1.7. The significance of this is uncertain.

" With regard to the disposal of children with losses, the figures have been rather distorted by the lack of an otologist since last June, e.g. some of the children who would normally have been referred directly to a specialist have been referred to Miss Cronie, Teacher of the Deaf, for assessment of the priority they should be given in the light of the limited facilities available.

" In spite of this, the service has continued to expand, and again the teaching staffs have given invaluable assistance and time to help us to obtain complete coverage of children at present in infant and junior schools, and by their watchfulness have again brought to our notice a considerable number of children who would probably have been otherwise missed."

TABLE I
ENTRANT GROUPS

Area	Year of Birth 1961	1960	1959	Total	No. with apparent loss	No. of re-tests	No. requiring investigation
North ...	1052	637	325	2014	410 (20.4%)	471	191 (9.4%)
West ...	731	704	151	1586	195 (12.3%)	227	135 (8.5%)
South ...	601	627	220	1448	148 (10.2%)	178	67 (4.6%)

TABLE II
SPECIAL CASES REFERRED

Referred for testing by:	North	West	South	Totals
School Medical Officer	103	46	106	255
Family Doctor	3	2	1	6
Head Teacher	100	12	3	115
Parent	—	—	3	3
Speech Therapist	9	1	1	11
Teacher of Deaf	3	1	—	4
Paediatrician	—	1	—	1
Referred re 2 H.P. examination	8	20	26	54
	226	83	140	449

TABLE III

Disposal of cases Discovered:	Routine			Special		
	North	West	South	North	West	South
For observation ...	150	83	39	58	3	98
Referred to School Medical Officer	12	36	7	34	7	17
Referred to General Practitioner ...	11	3	3	4	2	1
Referred to Otologist	3	13	18	—	2	14
Referred to Teacher of Deaf	15	—	—	8	—	—
	191	135	67	104	14	130

Disposal of cases Discovered:	Total		
	North	West	South
For observation ...	208	86	236
Referred to School Medical Officer	46	53	45
Referred to General Practitioner ...	15	5	4
Referred to Otologist	3	15	33
Referred to Teacher of Deaf	23	—	—
	295	149	328

Visual Defects

I have already drawn attention on page 19 to the high proportion of defects found in older school children which are visual in character and the need to maintain the close watch throughout school life on visual acuity.

There seem to be two main issues in organising a comprehensive ophthalmology service for school children. The first is to determine the most efficient method of primary screening of vision, and the second the most satisfactory procedure for the subsequent follow-up of those under suspicion and their examination by more specialised techniques. With regard to the former, I mentioned last year the Keystone Vision Screener. Partly associated with changes of staff, the use of this apparatus has not developed greatly in the past year, but a further screener has been supplied to the Southern Area of the county and I anticipate its use going ahead parallel with the audiometry, both being carried out by the same screening technician. Initial experience with this apparatus has suggested that the older methods are by no means discredited, but further experience is necessary under the hand of a smaller number of screening technicians, as mentioned above, taking advantage of the uniformity of lighting etc. conditions provided by such an apparatus. With regard to the most efficient subsequent service for children requiring specialist examination, I have already expressed some thoughts on page 30, and I am glad that the training of two school medical officers in refraction work has been going ahead steadily in 1966, Dr. Ainsworth, who is one of those concerned, writes appreciatively as follows:—

"Another aspect of the work which has been a new venture for me and which I now find most interesting and useful, is attending the eye clinics at Workington Infirmary. At first I found refraction difficult, but since overcoming this through the kind and patient help of Dr. Griffith, I am now very interested. I feel there are many advantages associated with this work.

"Closer liaison exists with the hospital and there is a personal contact with the hospital service which is invaluable. Also one has an opportunity to meet one's colleagues, e.g. the new Medical Officer for Workington Iron and Steel Company who often visits the eye clinic with his problems. Workington Iron and Steel Company employ a very large proportion of Workington's population and if one needs to contact the industrial medical officer in the future regarding school leavers this makes it easier through previous contact.

" One can constantly learn much about ophthalmology from the eye specialist.

" It is very helpful to see children from one's own schools and because of this one is in a position to know what lesion they have, what treatment is prescribed and at school medical inspection it puts one in a better position to assess the progress of the child's eyes.

" Also I think it is good for the school children in one's care to recognise the school medical officer's association with the hospital."

It seems that for the present anyway, the balance of advantage lies with continuing the secondment of a school nurse to the hospital ophthalmic clinics so that strong liaison will be maintained.

The numbers of children tested in 1966 and the numbers referred for treatment or observation are shown below, along with figures for the previous three years.

	Total No. tested.	*Referred for treatment.*	*Referred for observation.*
1966 ...	12,085	452	2,028
1965 ...	13,096	473	2,400
1964 ...	13,933	615	2,443
1963 ...	12,452	856	2,245

Orthoptic Services

The orthoptist, the specialist officer concerned mainly with the correction of squints, is of vital importance to a comprehensive ophthalmology service. Two part-time orthoptists are in post and one of these, Mrs. Richardson, writes briefly of her work below. The continuity of care in this work is of great importance and its absence is always a source of considerable anxiety to myself and to my colleagues, the consultant ophthalmologists. I am glad to say the first orthoptist trained under the County Council's scholarship scheme will be returning in December 1967 with a commitment to remain for at least 2 years with the authority. In addition it is gratifying to know that another girl who will be leaving school in 1968 has expressed a wish to take up the scholarship in that year. Only in this way I believe will an adequate service in this very important field be maintained. Another pleasing feature is the earlier referral of children also commented on by Mrs. Richardson, who writes as follows:—

" Orthoptic work in 1966 was shared between Mrs. Scott (2 sessions per week Carlisle) and myself (2 sessions Penrith, and 1 session Carlisle, per week). Occasional sessions were conducted in West Cumberland Hospital on a part-time basis by another orthoptist. It has been possible to spend more time on regular treatment this year and this has proved beneficial. One hundred and fifteen new cases were seen during the year, forty of which were at Penrith.

" The most important work in the orthoptic department is the treatment of Amblyopia which necessitates occlusion of the good eye to improve the vision in the squinting eye. For this to be carried out satisfactorily regular monthly visits to the clinic, and careful supervision is essential. Parents have co-operated very well and some excellent results have been achieved.

" An important feature of the work at the moment is that children are being referred to the clinic at a much earlier age. The earlier the child is seen the better the prognosis. Any time-lag from the onset of the squint to the time of treatment can be damaging, and in some cases, the cause of a permanent defect. It is apparent that parents are becoming increasingly aware of the desirability of treatment at an early age.

" There is scope for more orthoptic work in the county. One session per week is all that is possible at the moment at the Cumberland Infirmary, Carlisle. This is not adequate for the number of patients requiring orthoptic treatment and supervision. At the time of writing very little orthoptic work is done in West Cumberland, but it is hoped that this situation will be remedied shortly when the student, now training under the county scholarship scheme, qualifies."

The following table shows details of the cases treated during the year:—

Total number of attendances in 1966	947
Number of new cases seen	115
Number of new cases registered for treatment ...	77
Number of cases receiving treatment on 31st December, 1966	137

Treatment during year of new cases:

Partially accommodative squint	6
Partially accommodative squint with amblyopia	18

Fully accommodative squint	7
Fully accommodative squint with amblyopia ...	2
Convergence excess	5
Tonic convergent squint	6
Tonic convergent squint with amblyopia	10
Convergent squint secondary to congenital myopia	—
Esophoria	—
Fixation disparity	—
Amblyopia	4
Constant divergent squint	1
Divergence excess	5
Convergence weakness	2
Consecutive divergence	1
Exorphoria	3
Convergence insufficiency	3
Vertical muscle palsy	3
Hyperphoria	1
	77

Discharges during the year:

Cured	35
Cosmetic	29
Improved	12
Failed to attend	9
Left district	8
Not responding	2
Refused	1
Deceased	1
	97

Orthopaedic and Physiotherapy Services

The report on this important service for 1966 is made under the cloud of both the orthopaedic physiotherapists, Miss Morris and Miss Fraser, leaving. Both have served the county in this sphere most worthily over a number of years, and we wish them well on moving to new fields of work in their speciality. Their going has caused a complete re-appraisal of the physiotherapy services which they have provided for school children in the past. I know how highly my colleagues the consultant orthopaedic surgeons have valued their services and I am at present discussing with them the future pattern of service. The scarcity of trained and ex-

perienced physiotherapists is well known and there is no doubt that there will be in the very least a hiatus in the service in 1967. Writing themselves of the services as they have known it, Miss Morris and Miss Fraser clearly stress what they consider to be its outstanding advantages.

" The following are what we consider to be the distinct advantages of the county after care service over a hospital out-patient department, and these would be lost if the scheme was discontinued.

" In all types of orthopaedic conditions where regular supervision over a long period is required the clinics provide a generally more suitable situation for the child's review than attendance at a hospital out-patient department.

" The attendance of the orthopaedic physiotherapist at the surgeon's clinics ensures team work and co-operation over treatments. Direct contact with school medical officers is also valuable.

" The attendance of the orthopaedic physiotherapists at cerebral palsy clinics with Dr. Ellis and Dr. Platt also ensures a good follow-up of cases. The orthopaedic physiotherapists' knowledge of the patient's family and home environment is invaluable and cannot exist to the same extent when a child is attending a hospital physiotherapy department.

" In all cases requiring long standing supervision the physiotherapist becomes well known to the family and can therefore provide a wide range of advice and help at home.

" Support is also given to parents of children with a mental as well as a physical handicap. They are shown how to handle the child and encouraged to accept and understand the disability. This is a type of case which would not normally be referred to a physiotherapy department.

" We would like to make the following suggestions for possible future development of the scheme.

" A very large proportion of the children attending the clinics at present have been referred for the treatment of knock knee, bow leg and associated foot defects. Many are not referred until they have attained school age and are seen

by a school medical officer. We would emphasise the importance of the much earlier discovery of such cases with the co-operation of parents, health visitors, and district nurses, as it is obvious that the older the child the more difficult the correction of the defect.

" Liaison between the health department and the schools through the school medical officer and either a remedial gymnast or an orthopaedic physiotherapist is most desirable, for it is our opinion that a great deal more remedial work could be done in the secondary schools by the physical education teachers. They are in a position to keep a closer watch on children with postural defects noting and correcting their posture at the school desk, in assembly, and in the physical education class, thus avoiding unnecessary waste of school hours in attending clinics.

"We feel very strongly that correct footwear should be made compulsory in schools; the imposition of such a rule should present no difficulty, particularly where the wearing of school uniform is already in force. Even when parents have been encouraged by us to provide suitable footwear for their children we find that particularly in the new schools, the children are obliged on arrival at school to change into soft shoes which they wear throughout school hours."

Orthopaedic and Physiotherapy Conditions

The table below shows the number of cases receiving the services of the orthopaedic clinics and the distribution of conditions treated.

Number of cases on aftercare register, 1.1.66 ...	1294
New cases during 1966	149
Cases referred for orthopaedic physiotherapist only	151
Cases re-notified after previous discharge	9
Cases attaining school age after having been referred originally from child welfare clinic	149
Number removed from register	439
Number on register at 31.12.66	1313
Attendance at surgeon's clinics	536
Attendances at physiotherapists clinics	2269
Home visits by orthopaedic physiotherapists ...	338
Plasters applied	58
Surgical boots and appliances supplied and renewed (including insoles)	438
X-ray examinations during 1966	32

Conditions treated at orthopaedic clinics:

Flat feet	463
Bow legs and knock knees	357
Poliomyelitis	30
Scoliosis, lordosis and kyphosis	20
Congenital defects (including talipes and pes cavus)	118
Congenital dislocation of the hip	19
Torticollis	13
Injuries (including fractures)	7
Cerebral palsy	65
Postural defects	60
Hallus valgus and deformed toes	43
Disc	—
Birth injuries (Erbs)	10
Osteomyelitis	—
Perthe's disease and coxa vara	13
Arthritis	—
Spina Bifida	3
Synovitis and rheumatism	2
Chest conditions	1
Schlatter's disease	3
Hemiplegia	2
Muscular dystrophy	—
T.B. joints	2
Paraplegia	—
Other congenital defects	25
Other conditions	57
	1313

Speech Therapy

Mrs. E. M. Blacklock, the only full-time speech therapist at present, has contributed the following comments on her work:—

"All the children treated by me are receiving only fortnightly treatment. It is very interesting to note that the rate of progress made by the children with defective articulation is not any slower than when receiving weekly treatment. The average time needed to effect normal speech being about twenty months. The mothers always attend with these children and sit in during the treatment period. The good result of treatments depends on the mothers' helpful confident attitude and regular practice with the child at home. The fact that the mother is encouraged to take such an active part in the child's treatment frequently results in an improved general relationship between them.

" Each child is given a story book at each visit, this is for the mother to read to the child. So a comprehensive treatment of articulation, and language stimulation is carried out.

" The stammerers, however, are in a less happy situation, fortnightly treatment being very inadequate. When the defect of speech is a stammer a great deal of time should be spent both with the child and with his parents. Individual attention is usually necessary for part at least of the treatment programme. While group work has much to offer some problems can only be sorted out individually. These children attend for much longer periods and I find constantly that I am not able to see the parents as frequently as I should.

" The early referral of the pre-school child cannot be underestimated. Even when regular treatment is not available, periodic review of the case does prevent anxiety and maladjustment.

" The plastic surgery clinic at the Cumberland Infirmary is held fortnightly and all cleft palate patients are seen both by the surgeon and the speech therapist. This ensures the closest co-operation between the hospital service and the county speech therapy service. All such children needing speech correction attend their local clinic.

" If the figures for 'discharged as unco-operative' is high because I have to be ruthless with non-attenders. When time is short it is always gratifying to find such good co-operation from all other members of the school health service. During a conference which I attended in Glasgow this year this need for co-operation was stressed time and time again. Surely good powers of communication are vital to us and our patients."

In February Mrs. Blacklock and Miss Moon gave a talk on speech therapy at the West Cumberland Hospital Post-graduate Centre. The session was quite well attended by hospital staffs and general practitioners and many claimed that they had received a very valuable insight to the work of the speech therapist for children in particular. The following contribution by Miss Moon emphasises the advantage to an important service like speech therapy which close co-operation of health visitors and nurses with family doctors can bring. She also gives an insight into the important role that parents play in speech development and correction. Miss Moon writes—

" A welcome development in our work is the increase in the number of pre-school children referred by family doctors. These referrals are facilitated by the fact that health visitors are in constant touch with both the doctors and the therapist at their clinic, and provide an invaluable link between them.

" Parents become anxious when they realise that their child will be starting to go to school in approximately one year's time and has not yet developed easily intelligible speech. By reassuring the mother, and giving her advice about the best methods of helping her child at home, the speech therapist can often prevent parental anxiety over speech being transferred to the child himself.

" Once that transference has taken place, and a child has lost confidence in his ability to communicate successfully in words, he shrinks from using speech, and consequently its development is retarded even further. Continued pressure on the child to 'speak properly' may easily precipitate a stammer. In such cases regular visits to the clinic by both mother and child is strongly indicated. These are often cases where there has been a time lag between the parents' becoming anxious, and the first visit to the speech therapist.

" In those cases where the child is not suffering from speech anxiety, and the mother is willing and able to co-operate with the therapist, it is possible to give indirect treatment through her, seeing them both at regular intervals until either normal speech develops or the child is ready for more formal treatment in the clinic.

" When pressure of work at their clinics permit it, the therapists visit the infant schools and assess any children the teachers consider to have speech difficulties. This enables those children whose speech defects have become apparent since their initial medical examination to be admitted to the clinic for regular therapy.

" In the Northern Area we appear to be benefitting from having had a continuous speech therapy service for a long period now.

" Many more parents, than even a few years ago, are aware that help for their children with speech defects is available, and ask either their doctor, or a health visitor to put them in touch with the speech therapist."

The following table shows details of cases treated and attendances during the year:—

	Northern Area.	*Western Area.*	*Southern Area.*	*Total.*
On register 1.1.66	147	139	87	373
Admitted	63	84	65	212
Discharged	99	85	47	231
On register 31.12.66	111	138	105	354
Particulars of cases discharged:—				
Normal	56	43	16	115
Improved, unlikely to benefit further	28	21	9	58
Lack of co-operation ...	13	15	16	44
Left school and/or district ...	1	6	6	13
Passed to teacher of deaf ...	—	—	—	—
Referred to child guidance ...	1	—	—	1
Total	99	85	47	231
Waiting List	2	14	19	35
Cases treated:—				
Stammer and dispraxia ...	—	2	—	2
Dyslalia	60	52	31	143
Stammer	65	68	52	185
Stammer and dyslalia ...	18	7	3	28
Sigmatism	6	6	1	13
Cleft palate	13	9	8	30
Hard of hearing	—	—	—	—
Dysarthria	1	1	1	3
Dysphonia	—	—	1	1
Dysphasia	—	—	—	—
Retarded speech development	39	38	45	122
Dyslalia and dysphonia ...	—	—	—	—
Dyslalia plus low intelligence	9	4	—	13
Lateral sigmatism	5	7	3	15
Dyspraxia	12	7	7	26
Submucous cleft	—	—	—	—
Hyponasality	—	—	1	1
Hypernasality	—	—	1	1
Stammer and dysphonia ...	—	1	—	1
Stammer and dysarthria ...	—	1	—	1
Total	228	203	154	585

Attendances:—

Northern Area:

Allhallows	16
Aspatria	95
Carlisle	524
Penrith	338
Wigton	109
Wigton Infants' School	40

Western Area:		
Cockermouth		230
Keswick		86
Maryport		127
Workington		331
Southern Area:		
Whitehaven		430
Total:		2,326

Child Guidance

Undoubtedly the most important event in the child guidance service in 1966 was the arrival of Dr. J. R. Burgess as Consultant Psychiatrist with special interest and responsibility in child psychiatry. Since coming to the county in September, Dr. Burgess has assumed responsibility for the child guidance clinics in East Cumberland previously run by Dr. J. R. Stuart to whom the service will always be indebted for devoted work over many years. In West Cumberland, Dr. Burgess became the consultant to the West Cumberland Hospital child psychiatry out-patient department, and Dr. T. T. Ferguson has continued his work in the school clinics in the West. I am very glad to include as follows, Dr. Burgess' early impressions of the child guidance service in Cumberland. He writes—

" I think in general terms it is reasonable to say that this area provides a very complete child guidance service. From my own personal experience, it is better than most of those in the rest of the country. We are fortunately very well staffed from the point of view of educational psychologists and psychiatric social workers in both clinics. We are trying to extend the amount of play therapy that is done, particularly in the younger age groups as I find this not only to be important in establishing a close relationship with the younger child, but often in treating their problems.

" In cases suffering from enuresis which can often be about at least a quarter of the cases referred to the child guidance clinic, we are going to use what we hope may be a more efficient form of enuresis alarm. This is a transistorised machine which is supposed to reduce the occasional excoriation of the skin which may arise and should produce much better conditioning in the patient as less urine has to be passed before the alarm mechanism is triggered off. For-

tunately, the commercial model is on the market and it is not expensive so we have ordered some of these."

I am sure Dr. Burgess' coming will mark a very important forward move in the development of child guidance and child psychiatry in Cumberland. This movement towards a comprehensive service under the guidance of one specialist is forward looking and encouraging. This is particularly so in view of the long distances which children would otherwise have to travel to be seen by a specialist in this particular field.

I also referred last year to the appointment of a third educational psychologist. Mr. Haigh joined the staff of the Education Department in September and his work has also proved an invaluable strengthing of the child guidance service. This is commented upon by his colleague Mr. K. G. Hare, who writes as follows about the service as he has seen it in 1966.

"In the latter part of 1966 we welcomed a new colleague to the Child Guidance Service, Mr. C. R. Haigh, who was appointed as a third Educational Psychologist. Mr. Haigh comes to the service in West Cumberland at a time most opportune for further development and advance. His appointment makes possible a reduction of absolute numbers of children seen by individual psychologists, both in the clinics and in the schools, and thereby making deeper and longer continuing relationships between children and child guidance workers a reality. This is all to the good.

"Last year I mentioned the number of bereaved children we had seen and contrasted that with a previous pattern of disturbed adopted children. This year, however, has not seen a marked change in the general features of children referred to the clinics. We have continued to see many emotionally disturbed bereaved children and again the same pattern of multiple bereavements has tended to emerge. Many of the bereavements suffered by children are the results of heart attacks and of cancer, and one supposes that these fit into the general pattern of causes of death in the community.

"Society has always to face the problem of mortality and personal relationships. In the past the reconciliation of these social facts has been largely within the ambit of religious institutions. Changing attitudes in our rapidly changing technological society, however, may insist that a different approach to this question be found. An attempt

along these lines has already been made, and Mitchell's new book "Children's Attitudes Towards Death" is a notable contribution. This may well be an area of knowledge where health workers, social scientists, educationists and the clergy could meet.

"A further development on preventive lines, formally outside the child guidance service but with many very close links, has been the work of the working party on the 'unattached' set-up by the Education Committee in November, 1965, in the Whitehaven area and which has been operative throughout 1966. The educational psychologist has been a key member of this working party, and along with the County Youth Officer, Area Children's Officer, and leading heads of primary schools and others, it has been possible to establish out-of-school play groups and other activities for many socially deprived children, some of whom already attend the child guidance clinic in Whitehaven. The emphasis of the working party has been to integrate these children, and, where possible, their families within the structure of existing institutions; and further to provide an advisory service for parents, initially informal, but backed by the professional services and agencies. A large measure of success has been reported so far and it may be possible to carry this kind of work elsewhere, e.g. Workington, Maryport area.

"Throughout the year, as in the past, we have been aware of the paucity of educational provision for maladjusted children. This has been a continuing weakness in our work, but one we hope to eliminate some time in the future. In the meantime some investigation of the organisation of other authorities in this problem area is to be made."

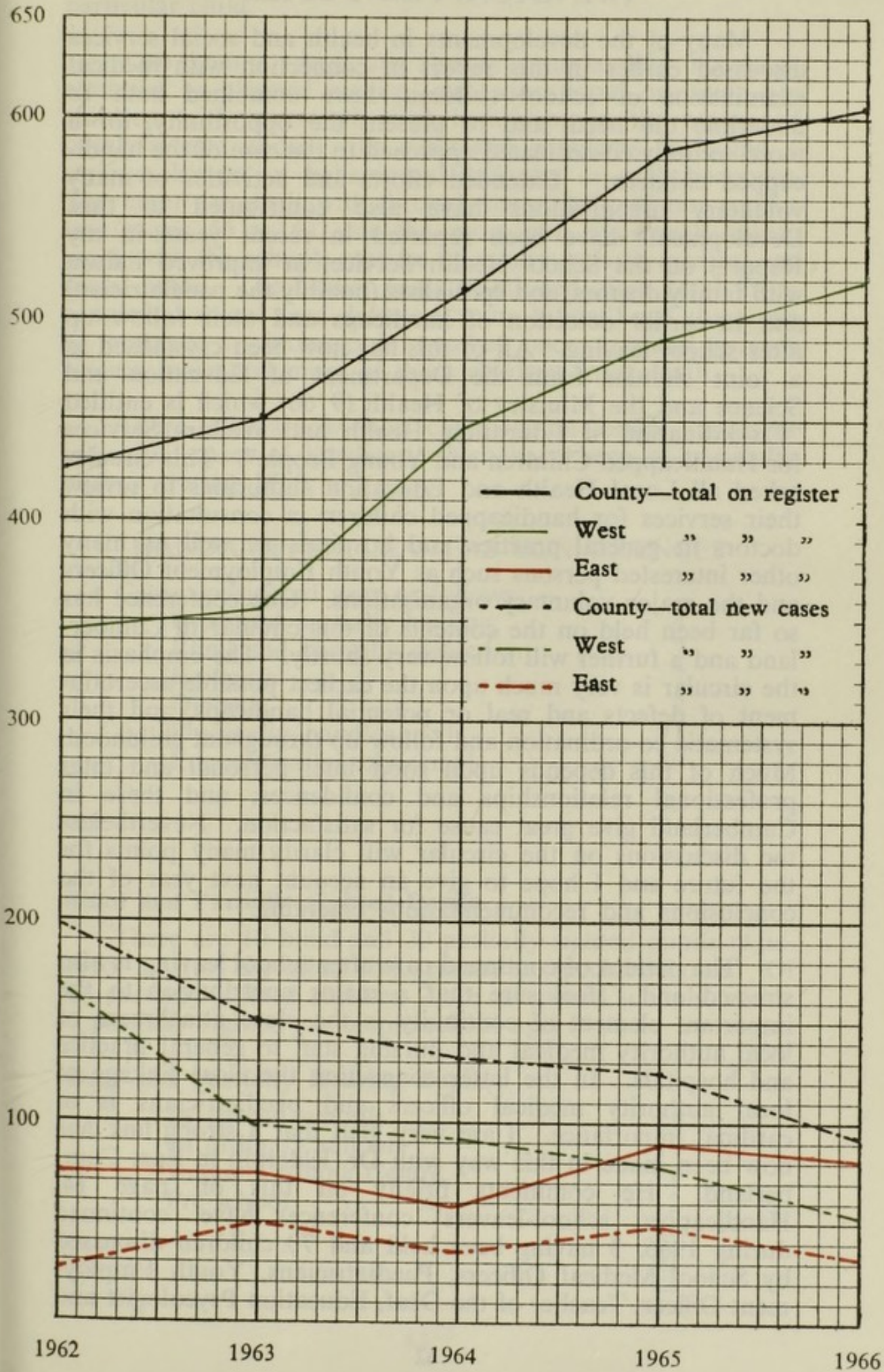
CHILD GUIDANCE CENTRES—STATISTICAL RETURN FOR THE YEAR ENDED 31-12-66

STAFF:	Carlisle:	Maryport:	Workington:	Whitehaven:	Millom:	
Psychiatrist	Dr. Stuart	Dr. Ferguson	Dr. Ferguson	Dr. Ferguson	Dr. Ferguson	
Educational Psychologist	Dr. H. Blair Hood	Dr. H. Blair Hood	Mr. K. G. Hare	Mr. C. R. Haigh	Mr. C. R. Haigh	
Psychiatric Social Worker	Miss E. A. Welch	Miss E. F. Hall		Mr. R. Daley	Mr. J. M. Ruddick	Total
Cases remaining on register at 1st January, 1966	49	11	419	31		510
New cases referred during year by:—						
Consultant or General Practitioners .	26	3	4	—		33
School Medical Officers	3	4	34	1		42
Children's Officers	1	—	1	—		2
Parents	—	—	1	—		1
Schools	4	—	3	—		7
Probation Officers or Courts ...	—	1	2	—		3
Others	1	—	—	—		1
Cases re-opened during year ...	2	—	3	1		6
Total cases on register during year ...	86	19	467	33		605
Cases dealt with and closed	55	12	10	5		82
Cases remaining under treatment on 31.12.66	31	7	457	28		523
Cases awaiting treatment on 31.12.66 .	—	—	—	—		—
	86	19	467	33		605
Interviews by Psychiatrists	269	59	—	—		328
Interviews by Social Workers ...	66	14	300	45		425
Interviews by Educational Psychologists	45	70	350	40		505

CHILD GUIDANCE REGISTER 1962-1966

		1962	1963	1964	1965	1966
Total on register during year.	East	74	74	64	91	86
	West	351	375	449	493	519
Total		425	449	513	584	605
		1962	1963	1964	1965	1966
Total new cases during year.	East	28	47	38	51	37
	West	167	101	99	76	58
Total		195	148	137	127	95

CHILD GUIDANCE REGISTER, 1962-1965



HANDICAPPED PUPILS

Many of the developments in health and social services discussed earlier in this report in connection with medical examination of school children, have combined both to underline the need, and to present the opportunity, for a more securely co-ordinated approach to the care of the handicapped children. Extended efforts and activities of many voluntary organisations have also contributed to this. Developments have been reported in recent years in my Reports on the School Health Service, in improved liaison with family doctors, and specialists (notably the paediatrician) and in earlier detection of handicaps and their follow up after school leaving. All of this has now been crystalised in a joint circular from the Department of Education and Science and the Ministry of Health (9/66) which is entitled "Co-ordination of Education, Health and Welfare Services for Handicapped Children and Young People". This circular asked all Local Health and Education authorities to review their services for handicapped children in consultation with doctors in general practice and hospitals as well as many other interested persons such as Youth Employment Officers and the major voluntary organisations. One conference has so far been held on the contents of this circular in Cumberland and a further will follow very shortly. The emphasis in the circular is very much upon the earliest possible ascertainment of defects and real or potential handicaps, and their systematic co-ordination and follow up throughout childhood. Much of this depends upon good inter personal and inter professional relationships and confidences; and these in Cumberland give great cause for satisfaction. Nevertheless the discussions on the circular will clarify many points for the future and I hope to give an account next year of the conclusions and recommendations emerging.

The pattern of continued care after school leaving is also stressed and I feel sure that a major contribution to the important element of continuity is the close attachment of local authority medical and nursing staff to general practice and hospitals. In the latter connection the close linkage of local authority medical officers and paediatricians is of cardinal importance. I am very glad that a strong link has now been made in this way with Dr. Elderkin in East Cumberland. He comments briefly on this on page 14. Handicapped school-leavers conferences have continued during 1966, 3 having been held and 70 children discussed by School Medical Officers, Paediatricians, Youth Employment Officer, Teacher of the Deaf, Education Psycologist and

any other party with an interest in or responsibility for a particular child.

Two groups which are already commanding increasing attention to planned medical and educational provision are children with severe physical handicaps in the nature of paralysis and those with combined problems including a serious element of behavioural difficulty or maladjustment. The latter are dealt with through the child guidance service (see pages 56 to 61) for the most part but much liaison work with the schools may be necessary in both medical and social fields. The former cases mentioned often result from congenital spinal cord defects ("spina bifida") and these can be expected to increase in number once neonatal surgery rescues more and more of these children from death.

There follows now short comment on certain groups or individual cases of handicap which have been of particular interest during 1966.

HANDICAPPED LEAVERS CONFERENCES

Cases considered were as follows:—

Deaf and partially hearing	4
Blind and partially sighted	3
Epileptic	7
Diabetic	2
Physically handicapped	21
Educationally subnormal	30
	67

Blind and Partially Sighted Pupils

There are 10 blind and 30 partially sighted pupils registered. All of the blind children are in special schools. Of the partially sighted children 2 are at special schools.
(6 partially sighted are of pre-school age).

Deaf and Partially Hearing Pupils

In special schools	21
In ordinary schools	17
Junior Training Centre	1
Pre-school	2
	41

Blind and Partially Sighted Pupils

The number of blind and partially sighted pupils registered are 10 and 30 respectively. Although there is normally no alternative to special residential school for a blind child, it is of great interest that special efforts were made during 1966 to accommodate in a grammar school in the county, a child who had become blind because of a brain condition. Because certain factors made it unsuitable for her to continue in a residential school, the teachers and pupils of her present school have shown great interest and initiative in integrating her into the work and life of the school.

Epileptic Pupils

During 1966 a small survey was made of the numbers of epileptic children ascertained as handicapped in the county. The figure was 1.3 per thousand of the school population, which is lower than the more generally accepted 4 per thousand suggested by certain authorities. Obviously the criteria applied to diagnosis and ascertainment as "handicapped" affects this figure. The co-operation of head teachers in the schools was sought in trying to clarify this position, and it was immediately found that there is a considerably larger number of children believed by the head teachers to be epileptic than are officially recognised as such by the school medical officers. This investigation is being still further followed up at present in an effort to tie the matter down more accurately. Epilepsy is an interesting condition to look at from this point of view since there is a tendency in some cases for parents to conceal the matter as far as the schools are concerned, and again some cases are treated by the family doctor alone, while others are referred to a specialist. It was instructive to see how interested many head teachers were in this subject, especially in the petit mal or minor epilepsy, which can pass unnoticed or be mistaken for inattention.

Another important point which emerged from this investigation was the question of reviewing children before school leaving to determine whether in fact the label "epilepsy" could not possibly be removed. This would apply of course to children who had had a number of years by that time without fits or treatment.

Physically Handicapped Pupils

It has been further evident during 1966 that the major single physical handicap which will have to be faced by the

schools and the school health service as a serious challenge, is that of paralysis of the lower limbs, often involving difficulty with the control of bowel and bladder. Whether caused by accident, disease, or, more commonly for the future, by congenital spinal cord defects, modern medical and surgical techniques are making life under more normal conditions possible. Yet another child in this category was prominent in 1966, a girl of six years whose attendance at ordinary school was strongly urged by both the consultant paediatrician and the school medical officer. Very understandably in some respects the headmaster was very reluctant to accept this girl, and only after a great deal of persuasion and actual day by day support for a time by the school nurse in terms of the management of bowel and bladder difficulties, has successful adjustment in the school seemed probable. It must be said in this case, as in many others, that the school having accepted the challenge of such a child makes a very determined and worthy effort to make a success of his or her management. The advantages to the child over any form of home tuition or even residential special school outside the area are enormous. I am particularly indebted to the consultant paediatricians for their very keen interest in such cases, including a willingness to visit the schools with the school medical officer to help the situation forward.

Handicapped leavers' case conferences in West Cumberland in particular have demonstrated the great value of a consultant paediatrician forming a major link with hospital departments and records, when the future of these children is being discussed with employment a prominent topic.

CHILDREN SUFFERING FROM CEREBRAL PALSY

The numbers in this category at 31st December, 1966, are as follows:—

Number of spastic children of school age—	
North Cumberland	20
South Cumberland	38
West Cumberland	16
	74

These may be divided into those:—

(a) Attending ordinary school	53
(b) Attending Percy Hedley School for Spastics, Newcastle	4

(c)	At Residental Schools for the Physically Handicapped	1
(d)	At Residental Schools for the Educationally Subnormal	—
(e)	Attending Training Centre	4
(f)	At Dovenby Hospital	1
(g)	At Prudhoe Hospital	—
(h)	Having Home Tuition	2
(i)	Not attending school, not having home tuition	1
(j)	Irton Hall	4
	Special Care Unit	4
		74

In addition:—

Number of children under school age but within the scope of the Education Act, 1944 (i.e., 2-5 years) who are known spastics:—

North Cumberland	5
South Cumberland	8
West Cumberland	2
	15

Table Showing Handicapped Children in Special Schools

BLIND

	Boys.	*Girls.*
Royal Victoria School for the Blind, Newcastle	3	—
Chorleywood College for the Blind, Hertfordshire	—	1
Royal Normal College, Shrewsbury ...	1	1
Total	4	2

PARTIALLY SIGHTED

Preston School for Partially Sighted ...	—	2
Royal Normal College	—	1
Heathersett Royal National Institute for the Blind	1	—
Total	1	3

DEAF

	Boys.	*Girls.*
Northern Counties School for the Deaf, Newcastle	4	1
St. John's, Boston Spa	—	1
Royal Cross School for the Deaf, Preston	2	5
Total	6	7

PARTIALLY HEARING

Liverpool School for the Partially Deaf, Southport	2	3
Northern Counties School for the Deaf, Newcastle	1	—
St. John's, Boston Spa	—	1
Royal Cross School for the Deaf, Preston	—	1
Total	3	5

EDUCATIONALLY SUBNORMAL

Ingwell School, Moor Row	48	—
Higham School, Bassenthwaite Lake	—	32
Eden Grove School, Bolton, Appleby	2	—
Total	50	32

EPILEPTIC

Colthurst House School for Epileptics, Warford, Cheshire	1	—
Total	1	—

PHYSICALLY HANDICAPPED

	Boys.	*Girls.*
Percy Hedley School for Spastic Children, Newcastle	2	2
Irton Hall School, Holmrook ...	3	2
Singleton Hall School, near Blackpool	1	—
Margaret Barclay School, Moberley, Cheshire	—	1
Hurst Lea School for Crippled Boys, Kingsgate, Kent	1	—
Dene Park Further Education Centre, Tonbridge, Kent	—	1
Total	7	6

Educationally Subnormal Pupils

It will be seen from the figures shown on page 70 that of the children receiving a 2 H.P. examination in 1966, a higher proportion than in the previous year were reported as unsuitable for education at school. This situation fluctuates of course from year to year, and in a year like 1966 reflects the experience of a number of children who have been studied over a period in ordinary schools or schools for the educationally subnormal, but on whom the final decision has had to be made as unsuitable for education at school. Thereafter these children find their place in training centre for subnormal children.

The borderline between the educationally subnormal child and the child unsuitable for education at school is one which taxes the skill and judgment of the school medical officer, educational psychologists and teachers alike. The decision that a child can no longer attend an ordinary or even special school is naturally one which means a great deal to the parents as well as to the child, and a careful balance has to be preserved between firmness in insisting that a child is subnormal and should as positive policy for his good attend a training centre; and on the other hand a flexible attitude to the borderline child over a period of assessment, which may be quite prolonged. Dr. Campbell is one of the school medical officers with considerable experience now of this problem and she has a link in clinical work with Dr. Ferguson, Medical Superintendent of Dovenby Hall Hospital for the subnormal. She comments below on one of the small group of children who require a flexible approach, involving school and perhaps training centre for a time. It must be stressed however that in these cases extremely frequent and

regular reassessment is essential, and only an occasional child would spend more than a year in a training centre with any real prospect of special schooling later. Dr. Campbell writes as follows—

"There are occasions when children with a certain amount of brain damage even though they are in the lower educationally subnormal group, may find great benefit from a few terms at the training centre. The pace there is slower, no effort is asked of the child and undoubtedly this rest to the brain helps certain children to adjust themselves to the more exacting situation of the educationally subnormal school later. Nor can we be certain to what extent brain damage in the very young will be overcome by brain development later.

"Take the case of one such little girl. She had tuberculous meningitis at $10\frac{1}{2}$ months which left her with brain damage resulting in backwardness, a squint and partial paralysis of her left arm and leg, and also the extreme hyperactivity so often seen in some backward children. Her concentration was such that it was impossible to carry on any sort of conversation with her or for her to stay at a task for more than a moment or two at a time. She was fortunate in having a good home and intelligent mother, who while she realised the child's limitations, was anxious that she should attend normal school. She was treated by her parents as a normal child as far as possible.

"At 5 years old the problem of her schooling arose and it was decided that she should be admitted to normal school on trial, though there was some doubt as to how she would settle down owing to her extreme restlessness. This doubt was realised after 6 weeks when the teacher reported that her hyperactivity was such that she was a disturbing influence and required constant observation.

"It was realised that it would be impossible for her to stay in normal school. Her mother was quite willing that she should be sent to a training centre after assessment (I do not think she would have been so willing had not the child had a trial in normal school first).

"After a period her development was re-assessed and her progress was such that it was decided to transfer her to a special school for educationally subnormal girls. She has been at Higham School for $1\frac{1}{2}$ terms and has settled down very well. She is now capable of coherent conversation, very happy and cheerful and making progress generally."

2 H.P. EXAMINATIONS COMPLETED IN 1966 UNDER SECTION 34 or 57.

Recommended Special School—E.S.N.	18
Recommended Special Class—E.S.N.	8
Reported unsuitable for education at school	30
No special educational treatment required	—
Decision deferred	9
Total	65
Number of boys on waiting list for Ingwell School ...	29
Number of girls on waiting list for Higham School ...	16

NEW CASES REFERRED IN 1966.

Placed under supervision for further investigation of intellectual capacity	
Referred by:—	
School Medical Officers	16
Psychologists and Teachers	36
Consultants and Hospitals	19
Health Visitors	7
Others	2
	80

Supervision of Educationally Subnormal Leavers

The scheme for the supervision of educationally subnormal leavers has now been going on since 1963 and very useful work has been done by the social welfare officers and the health visitors. I feel however that especially as far as the boys are concerned, this work is more appropriate to the social welfare officers and I think it is right that they should undertake the major part of the supervision of these children after leaving school. The inclusion of educationally subnormal children in the handicapped leavers conferences referred to elsewhere in this report is a very valuable feature of these conferences.

The up to date position is shown again on page 71.

SUPERVISION OF EDUCATIONALLY SUB-NORMAL SCHOOL LEAVERS

	1964.	1965	1966
Total number of leavers	51	55	65
Placed under supervision of Mental Welfare Officers ...	24	16	17
How placed at end of one year:			
(a) employed	10 (6)	9 (10)	7
(b) unemployed	9 (2)	6 (9)	5
(c) unemployable	4 (1)	— (4)	—
(d) at training centre	1 (—)	1 (1)	5
Placed under supervision of Health Visitors	18	23	24
How placed at end of one year:			
(a) employed	9 (10)	16 (9)	15
(b) unemployed	4 (6)	4 (4)	7
(c) unemployable	4 (—)	1 (4)	1
(d) at training centre	1 (—)	2 (1)	1

Figures in brackets denote the situation at the end of 1966, of 1964 and 1965 leavers.

DENTAL SERVICE

Mr. R. B. Neal, Principal School Dental Officer, has kindly prepared the following report on the work of the School Dental Service during the year—

"During the year 1966 the dental clinics at Penrith, Wigton, Egremont and one surgery at Flatt Walks, Whitehaven, have been re-equipped, but there is still much to be done before all surgeries will be brought up to a reasonable standard. Although conditions have been made very good in many clinics there is no reason to think that the end of the road is in sight and that one can become complacent. It is most unfortunate that there will be no capital expenditure permitted during 1967, except for the provision of two new X-ray units. There is still much equipment in constant use, which is well over thirty years old, and there are more and more breakdowns occurring as the years pass by. One anaesthetic apparatus and four compressors are in such a condition that they cannot be repaired again if anything should go wrong with them.

"X-rays have provided a major problem in view of the fact that a new Code of Practice has been brought out by the Ministry of Health. All apparatus has had to be specially examined by the manufacturers and brought up to a minimum requirement. Two X-ray units have been condemned, which has reduced our effectual coverage of the county by more than half, because these are portable machines. Three lead lined aprons must now be provided for each apparatus and special signs are being painted to be hung on the surgery doors whilst X-rays are being used. As a direct result of the stringent regulations regarding the use of X-rays, we can at most have four serviceable machines, and so transport costs will of necessity be increased because one will no longer be able to take a portable X-ray machine to a rural area.

"Once more it should be stressed what tremendous advantages one gets due to the co-operation of hospital consultants and the provision of full hospital facilities without demur. In particular, special thanks should be given to Mr. G. H. Roberts, Consultant Orthodontist, Mr. P. Bradham, Consultant Oral Surgeon, and Dr. J. Platt, Consultant Paediatrician. The X-ray departments throughout the county have been most helpful, but in fairness to the radiologist and his staff it should be realised that the apparatus in both Workington Infirmary and the West Cumberland Hospital

are general medical machines, so the standard of picture may be slightly poorer than one taken on a dental apparatus. Dr. Watson-Baker, Consultant Radiologist, has expressed some concern about this and also that he is short of radiographers and is thus unable to give the school service all the help that he would wish to. It will be seen therefore that there remains an urgent need for the injection of yet further substantial capital sums for equipment.

" The year has not been quite as successful as had been hoped, because of an appreciable amount of illness amongst the staff, a serious hold up at one Whitehaven surgery which required three months to have the alterations completed and also a shortage of dental officers.

" One new dental officer, Mr. J. Docherty, B.D.S., was appointed and commenced duty in September. Very speedily he proved himself to be an excellent worker, most popular with the children and an extremely co-operative and pleasant colleague. Unfortunately he resigned because of personal and domestic reasons.

" In several areas there is now excellent co-operation between the general dental practitioners and the local authority service. This is certainly a step in the direction of unity and emergencies are now seen either by a private practitioner or the school service, whichever is more convenient.

" Health education is beginning to play a more important part in the dental programme and several schools have had film shows and talks, whilst several dental officers have been asked to speak at Young Mothers' Clubs, Rotary Clubs and Women's Institutes.

" Three dental officers have been attached to Mr. Roberts at one of the hospitals in Cumberland for special experience in orthodontics and this has proved to be of inestimable value to these dental officers and, in consequence, their patients.

The following comments are made by Mr. M. Green, Dental Officer—

" My area covers Cockermouth, Keswick and the Mirehouse district of Whitehaven. There is a total school population of 4,300; of these about 70% accept treatment from the school Dental Service, and just over half of these are found to need treatment at school inspections—a total of 1,600. This

allows each child needing treatment just less than one hour in the dental chair per year. This is quite inadequate. It is, however, a not uncommon state of affairs.

" A fully comprehensive range of dental treatments is offered generally, although it is more complete at some clinics than at others. This is because one clinic (used 3 days per week) has modern equipment and two others (1 day per week clinics) tend to be rather make-shift affairs. The more modern the one, the more 'stone-age' the others seem. Picture the exuberant child jumping into the dental chair, as many of them do, saying in an injured voice, 'Ow, that's hard!" and the sensitive child jumping out of the chair when the dental compressor 2 feet away strikes up with a sound like a pneumatic drill! Prior warning does not always avoid this.

" Apart from the dentist/patient ratio already mentioned, the main limitation on treatment is by the patient or parent saying "No, I don't want this tooth root filled and crowned, I want a partial denture." If we haven't the specialised skills or equipment for any particular child, the hospital service has, and we send him off there. There is a very close liaison with the hospital service, none better demonstrated than in the orthodontic department. For some years now dental officers have been able to work with the consultant orthodontist on a half day per week basis. I have done this and found it to be of immense value, as a children's dentist is dealing with a developing dentition, which, in possibly half the cases, needs some guiding for it to reach an end result which is both functional and aesthetic. Much of this is simple orthodontics, sometimes being completed in 3-4 weeks using only one appliance or with well planned extractions. Some look easy, but are not; and others look necessary, but if left alone will often sort themselves out. It is in these last two categories that we can learn so much and, due to this far-sighted arrangement, this is happening.

" Thus, our time is spent on attempting to conserve as many mouths as we can against the ravages of this disease of civilisation, and on straightening those teeth we have been able to save, but how much time is spent trying to stop the rot ?

" I would suggest that much more could be done on the preventive side. This means education both of the child and the parent. Restriction of 'between meals' snacks reduces dental decay dramatically. But can we blame the child wanting buns at 11 a.m. if he has not had an adequate breakfast?

We have to explain fluoridation and convince the public that it is vitally necessary and that there is no doubt as to its safety. Until flouridation arrives we might consider other suggested preventive measures such as fortnightly rinsing with 0.2% sodium fluoride. All patients attending the clinics should demonstrate that they know how to look after their teeth before routine treatment is started. On entering school each child could be presented with a tube of toothpaste and a brush and be shown how to use them.

" One highly trained full-time dental health nurse could do much of the above, and so allow dentists to treat patients full-time while not neglecting the preventive side.

" Therefore, it will be seen that much is being done, much still needs to be done, and many more dentists need to be persuaded to enter the school service. Before this happens there must be better remuneration and career prospects, though there are at present advantages over general practice; there is more clinical freedom and a more relaxed atmosphere generally."

PREVENTION OF INFECTION

Protection against Tuberculosis

The scheme for the B.C.G. vaccination of appropriate older school children is now in its eleventh year and in this period has witnessed a steady fall in the number of notifications of pulmonary tuberculosis. Nevertheless salutary reminders recur of the still present risks to young people from this infection and at the time of writing no fewer than three cases of tuberculosis meningitis in children are under treatment in one hospital in the county. Sometimes elderly people with long standing pulmonary disease infect their youthful contacts, be they grandchildren or others, and the entirely commendable social service by youth to the elderly may very occasionally present a hazard of infection.

It is therefore the more important that a high level of protection should be ensured early in secondary school life. I referred last year to a gratifying response to an effort to increase the consent rate by parents when skin testing and B.C.G. to follow if necessary, is offered routinely at 13 years. This had risen to 90% and in 1966 has dropped back a little to 86%. I would hope to correct this slight decline in 1967 and to urge all parents to ensure that they avail themselves of this service when offered.

I am glad to say that the percentage of children given the mantoux skin test who were found positive (and thus having had some significant contact with the infection in the past) has returned near to the 1964 level viz. 11.8%. In 1965 the figure rose to 13.3%. The children found negative are given B.C.G. vaccination and those positive offered further check by X-ray. The acceptance rate of this further check still leaves a lot to be desired. Of the 314 so offered X-ray in 1966, only 200 availed themselves of the offer; and again I am glad to say no sign of active tuberculosis infection was found in any. 36 were already under the surveillance of the Chest Centre and 156 were known to have B.C.G. vaccination previously.

The Dermo Jet gun apparatus is going into use in a pilot group in 1967. This pressure gun is claimed to be more comfortable for the child and early reports from other authorities where it has been used are encouraging.

Protection against Diphtheria and Tetanus

In 1966 the following numbers of school children were immunised against Diphtheria, the figures in brackets referring to the previous years.

Primary Course ...	...	916	(1,016)
Reinforcing Injection	...	5,472	(4,024)

For Tetanus protection the numbers were:—

Primary Course ...	...	1,096	(1,974)
Reinforcing Course	...	5,118	(2,922)

In my view these figures represent a small but gratifying improvement on the previous years. I have repeatedly commented that a total figure of school children given either reinforcing (the majority) or primary courses should be about 7,500 to ensure adequate protection of the school child population. This would represent almost a full year group at two stages in school life—normally at 5 and 10 years. A small number given reinforcing doses by the family doctor may not be comprehensively notified to me. It will be seen that in 1966 over 6,000 were so protected.

At the time of writing, the entire recording system for vaccination and immunisations is about to change consequent upon a Ministry of Health decision that records should in the first place go to the Executive Council (for payment of general practitioners from this source in future) though subsequently notified also to me. Whether one effect of the new arrangement will be an increase in protection of children of school age by the family doctor (hitherto mainly catered for by the school medical officer) remains to be seen. These two will, at all events, tend to converge in the long term as the family doctor comes more into the work of the school health service.

The role of the nurse in immunisation has also been under further close study and it seems likely that a general agreement with doctors will soon be reached on the conditions under which a local authority nurse can be deputed to administer vaccinations and immunisations on a doctor's behalf. The main point is that the doctor would accept clinical responsibility for the material prescribed and for the suitability of the individual child to receive this. In school sessions the nurse would carry out such procedures in the doctor's presence, both now being able to carry out the actual administration of the antigens.

It had been hoped that a completely new and more efficient system of recording immunisations and of re-calling children for reinforcing doses, based on the County Council Computer, would have been in detailed plan at least by now. Alas, it has not yet been found possible to allocate the necessary funds for the coming financial year to provide the necessary additional computer equipment.

Protection against Poliomyelitis

Following the Blackburn outbreak of poliomyelitis in 1965, there were few cases throughout the country in 1966, but I am glad to say that it was possible to maintain quite a high level of protection amongst school children. Altogether 3,626 children received reinforcing doses and 1,597 received primary courses at school. The former figure is slightly lower than and the latter slightly higher than last year's figure, which it will be remembered represented a very vigorous effort to raise the level of protection in school children. I do hope that parents will continue to show this very wise concern lest poliomyelitis once again takes a heavy toll of child health.

Infectious Diseases

The incidence of notified infectious disease in school children in 1966 is shown in the table on page 81. It will be seen that the figures for measles are much lower than in 1965 and this reflects the usual alternation of measles incidence between one year and the next. At the time of writing this report the indications are that 1967 will show a very high figure indeed both nationally and locally for measles incidence. Vaccination against measles has not been generally introduced as yet.

I am glad that very few cases of dysentery were notified amongst school children during the year, and food poisoning and paratyphoid were not notified. This contrasted with the situation last year where paratyphoid imported from the Blackpool area proved a real anxiety for a time.

During 1966 however one condition which returned with a now unfamiliar severity was scarlet fever in the Millom area and I am grateful to Dr. Slater, Medical Officer of Health, Millom Rural District, and Assistant County Medical Officer in the area for the following report—

"After years of relative freedom from scarlet fever, an outbreak of this disease commenced in the Millom schools during February and dragged on until June, 1966. The

number of scholars involved was 82, of which almost half were young children attending infants' school. The disease was quite severe and obviously very infectious. Recent experience of scarlet fever has tended to make one regard it as a rather trivial complaint readily responding to a short course of antibiotic or chemotherapeutic treatment, after which the patient can make an early and safe return to normal activities and soon be back at school. It was quite apparent from the medical examinations of some of these scholars on their return to school that whilst the antibiotic treatment they had received had remedied the soreness of their throats, their headaches and feverishness and their rashes, it had not cleared up all the other manifestations of a nasopharyngeal-streptococcal infection. The further exclusion of some of scholars resulted in a steady reduction in the number of new cases of the disease in the schools and the outbreak cleared up by mid-June.

" It is interesting to speculate on one or two points which arose during this outbreak and the following come to mind—

" The current impression that scarlet fever has now become a readily treated and almost trivial condition does not render it any the less infectious or less readily transmitted to others susceptible to the haemolytic streptococcus.

" As a newcomer to the district it seemed worthwhile to recall and re-institute some of the old traditional health department procedures in dealing with this infectious disease.

" There appeared to be a need for a further exchange of information and better contact between the schools, the local doctors and the medical officer of health whereby amongst other things the premature return to school of the infected scholars should not arise."

I am grateful to Dr. Hunter, Western Area Medical Officer, for the following comments on the use of gamma globulin in the prevention of infectious hepatitis—

" A field trial was launched towards the end of the year by the Public Health Laboratory Service (a) to survey the incidence of infectious hepatitis among contacts in schools and institutions and (b) to assess the efficacy of British gamma globulin in preventing infectious hepatitis in contacts in schools and institutions. The procedure to be followed by participating authorities was given in a detailed protocol.

" The disease is not generally notifiable by regulation made under Section 144 of the Public Health Act, 1936, and is not in fact notifiable in any district of this county. Information does however come from time to time from family doctors and teachers of its occurrence but the total incidence in any one year is not known. The districts most affected recently, as judged by reports, have been Workington (Harrington) towards the end of 1965, and Maryport at the end of 1966. Again, the total cases have not been capable of assessment. However, reports from head teachers and family doctors have given a sufficiency of cases in the Maryport district on which to start a contribution to the field trial.

" A selection of five index cases of recent infection was made and the parents of 80 contacts approached to give consent in the experiments.

" Half of these were offered gamma globulin and half were allocated the role of non-injected contacts. By arrangement with the family doctors all injections were carried out by one school medical officer. Follow-up by the school nurse has been carried out periodically to note the occurrence of infection in contacts, but after allowing for 50 days as a reasonable maximum incubation period, no secondary case had occurred.

" Thanks should here be accorded to the family doctors and head teachers for their ready help in the project."

CASES OF INFECTIOUS DISEASES IN CHILDREN OF SCHOOL AGE, 1966

	Scarlet Fever	Whooping Cough	Measles (excluding Rubella)	Dysentery	Meningococcal Infection	Ac. Pneumonia	Food Poisoning	T.B. Respiratory	T.B. Meninges & C.N.S.	T.B. Other	Paratyphoid	TOTAL
URBAN:												
Cockermouth ...	1	1	—	—	—	—	—	—	—	—	—	2
Keswick ...	—	—	—	—	—	—	—	—	—	—	—	—
Maryport ...	16	—	13	—	—	1	—	—	—	—	—	30
Penrith ...	—	1	43	—	—	—	—	—	—	—	—	44
Whitehaven ...	5	—	5	1	—	1	—	—	—	—	—	12
Workington ...	2	1	89	—	—	—	—	1	—	—	—	93
RURAL:												
Alston	—	—	68	—	—	—	—	—	—	—	—	68
Border	4	16	121	3	—	—	—	—	—	—	—	144
Cockermouth ...	21	4	41	3	—	—	—	—	—	—	—	69
Ennerdale ...	6	6	35	—	—	—	—	2	—	—	—	49
Millom	64	—	21	1	—	—	—	—	—	—	—	86
Penrith	—	—	53	—	—	—	—	—	—	—	—	53
Wigton	2	—	67	—	—	—	—	—	—	—	—	69
Total ...	121	29	556	8	—	2	—	3	—	—	—	719

No notifications were received in respect of poliomyelitis, diphtheria and smallpox.

Swimming Baths

The number of swimming baths associated with schools has continued to increase and there is generally very good co-operation between the school staffs and the district medical officers of health and public health inspectors who undertake bacteriological sampling from time to time. Of the swimming pool brought into use at Keswick School during 1966, Dr. Hargreaves writes as follows—

" These swimming baths, which are a most remarkable example of self-help, underwent basic completion in the summer of 1965 and became fully operational as from April, 1966.

" This is an open air pool 60ft. x 24ft., maximum depth 8ft. with two shallow ends (for teaching purposes) of depth 3ft. 3ins. The bath has a somewhat elementary filtration plant which appears however to be quite effective. The water which is changed approximately every eight hours, is supplied from the Keswick mains, and is further chlorinated by a drip-feed mechanism before entering the baths. The water is tested daily for the presence of free chlorine by the chemistry teacher. The bath has no heating mechanism—during the season of use (March to September) the temperature of the water varies from 40 deg. to 70 deg. F.—usually 50 deg. to 70 deg. F.

" The baths are well patronised by the school children and so far have been used exclusively by them—the maximum load in any one session is about 30."

The pool at Wyndham School, Egremont, is one under the care of a full-time baths superintendent, who keeps full records of the p.H. and residual chlorine. No plant modifications were called for during the year. The general public have access to the baths. Chlorine gas is used for sterilisation purposes. The pool, which is open all the year round, appears to have been run without complaint. Bacteriological sampling of the water was satisfactory.

Reports from Millom, Seascale, Maryport, Penrith and Houghton all indicate a generally satisfactory state of filtration and chlorination, though even occasional unsatisfactory bacteriological samples indicate the need for a continuing close watch on equipment and loading. Routine colour testing is undertaken by the school staff.

HEALTH EDUCATION

Health education is part of the preparation for family life and where can this be taught apart from the home? The answer—in the classroom.

There is a growing awareness both by the schools staff and the health visitors that co-operation is essential to put this health education over to the children by attractive and interesting methods.

The report this year takes the form of accounts by school medical officers, head teachers, and school nurses of their work in widely separated areas of the county where there has been real progress during 1966. Dr. Walker, school medical officer, working in the Ennerdale area, writes as follows—

"The aspect of the school health service which has impressed me most in the past year has been the increasing co-operation between the teaching staff and the health visitor and school doctor on the subject of health education.

"In two schools in particular there has been marked progress. In Ehenside and St. Cuthbert's schools, Cleator Moor, in addition to the health visitors arranging talks and demonstrations in the schools, the senior girls have been allowed to attend the child welfare clinics and have been encouraged to take part in the care of the elderly.

"The girls attend usually two or three at a time, and I have found that groups of this age are the easiest to work with. In these small groups the girls take part in friendly discussions and raise problems which they might not in larger groups.

"The new card which we are using in the clinics always provokes a lot of questions and I think that the girls are learning the importance of the prevention of disease by immunisation procedures and that regular adequate supervision is required in the early detection of defects.

"The teaching staff have been most co-operative in arranging this programme, and I understand that the girls concerned are having an examination paper based on what they have been taught in the clinic. It will be interesting to study their answers, to evaluate the success of the programme, and to see if it can be extended."

Miss Gill, Senior Mistress of Ehenside School, and Miss Sheppard, health visitor, have worked together and the pattern of their programme shows a constructive outlook on the subject. Miss Gill writes enthusiastically—

" The health visitors have regularly given of their time for one hour per week to talk and demonstrate with films or filmstrips on health education, covering infant welfare, prevention of and caring for infectious and other diseases, discussions on smoking, alcohol, home nursing, first aid and personal grooming.

" I feel this course is very worthwhile for all girls and especially the average pupil who is not staying on at school for an extended course and who will look forward to marriage in a few years' time. The nurses are experts in their subject and there is no one better to administer these talks which really link up with health visiting and its preventive teaching.

" I feel that many 'old wives tales' have been weeded out. We can co-operate in difficult cases, keeping an eye on and advising any girl in difficult home circumstances; nurse can speak to children individually on personal hygiene and this has greater effect than 'en masse'.

" We have always had welcome co-operation from the nurses in the district and the girls do look forward to their visits. The girls are examined on the work done. It is a valuable service."

Miss Sheppard, Health Visitor, writes—

" We have continued with weekly talks in the two secondary modern schools and are trying to bring into being a series of health education talks which will allow for discussion of health hazards and their effects on individuals and communities; we are having some difficulty with this as it is such an involved subject. Our aim is to teach health in such a way as to encourage the child to understand and act sensibly within a given environment, to her own best advantage, thus increasing her ability for co-operation, understanding and service to others.

" We give some explanation as to the reasons why people feel and act as they do, and have found the most effective way to do this is by a diagram of the structure of the human brain explaining what we know of the way in which basic needs are influenced by the development of the cortex, when

this is understood, it is less difficult to explain to the children both usual behaviour and also such things as mental illness, alcoholism, V.D., drug addiction, etc.

" Usually we teach by using the blackboard and asking questions—such as "Who is important to a baby and why?" illustrating by a graph on human relationships; or "What effect does an addiction such as alcoholism have on (a) the person (b) the family (c) breakdown in health (d) family break-up."

" One school has extended its concern for community care by cooking a meal under supervision for the elderly people attending the Cleator Moor luncheon club."

Miss Walsh, health visitor, who has had a special responsibility for the remedial group of children in Wyndham School, reports on her work among them—

" Since last year, with co-operation of the head of the remedial group in Wyndham School, Mr. Lewis, I have found it possible to give talks to the remedial group at Wyndham School.

" The children in this group are difficult to teach because of intellectual difficulties, but as the majority of severe social and health problems are connected with this group they do need every help and assistance.

" The new selective system of cleanliness examinations used in Wyndham School since last year spotlights this also as 99% of children needing extra supervision because of head infestation are also in this group. The new selective system allows more time to concentrate on this group with the result that only 3 children had head infestation at the last inspection as opposed to 10 in previous inspections."

Apart from the type of programme outlined above, there are the usual mundane things which must continually be talked about to the children. There is the problem of cleaning the teeth. This seems to be a failing, more so among the boys—not cleaning their teeth or not even possessing a toothbrush. Dental hygiene films showing the necessity of healthy teeth such as "Tons of Teeth" are frequently shown, but the problem remains. If only the other pop groups led

by the Beatles' example would campaign for oral hygiene! In some areas personal hygiene among the older children is not as good as it should be—perhaps due to lack of parental supervision through both parents working and the children being left to see themselves off to school.

Another disturbing feature which is becoming more common is the overweight child. This creates both mental and physical problems and much time and patience has to be expended in order to help the child understand the necessity of the right diet, to find the cause of over-eating, and to prevent indiscriminate slimming pills and diets being used. Home visits to the parents of these children are essential, but one does not always find a co-operative parent, and several visits must often be made to enable them to appreciate the significance of the danger of taking slimming pills, or to find the reason for overeating and to encourage a balanced diet. Health education does not always mean a conducted class to a captive audience. Its success can often be through family contacts where advice and information is passed on in a natural way in the home.

Mrs. Sansom, school nurse, writes—

" In the earlier part of the year a film on 'The Dangers of Smoking' was shown at the secondary modern schools after which questions were answered by the school medical officer. On asking the pupils if they remembered any of the anti-smoking posters they had seen, the pupils' response was negative. New posters were supplied for display in the schools.

" I concentrated one month on dental care giving talks on care of teeth and personal hygiene—using flannelgraphs and charts and pictures supplied by the British Dental Association and the General Dental Council. I have found that on the whole most children possess a toothbrush but very few are encouraged by parents to use them regularly. I stress this point each time I visit for a routine inspection because I find the older group of children have very neglected teeth indeed.

" With the boys' and girls' school becoming comprehensive and co-educational, the pattern of school life will change and our work with it. Most headmasters are very progressive and wish to offer us better facilities for school medical inspections, etc."

Miss Butler, health visitor, reports—

"A series of mothercraft sessions given to top form pupils at Lochinvar School included making a layette for a baby. Each girl made one garment which included a matinee jacket, nightdress, pillowcase, and eiderdown cover for pram, bib, mackintosh apron for bathing. They also filled and padded a toilet basket for the baby. This was given to a baby in Longtown for an Easter gift, the same baby having starred personally in 'How to Bath a Baby' demonstration in the school. Other lectures included 'How to Keep Baby Clean', 'Washing Clothes', 'How to Prepare and Give a Feed'.

"Co-operation with the school dentist resulted in three films on dental health, followed by discussion, being shown to about 900 children in seven different schools. I consider this to be the most neglected part of school children's general hygiene, and care of the teeth needs constant repetition to be any way effective.

"The sale of toothbrushes at clinics is a step forward, though it is surprising that at a certain age this simple procedure of cleaning the teeth seems of no account."

The Duke of Edinburgh's scheme for gaining awards covers a number of useful health projects in its programme, and the satisfaction of a child having gained a medal be it bronze, silver or gold gives a feeling of achievement and the content of the course covered makes a lasting impression. This, when it contains amongst other things an awareness of the human body together with the art of living a healthy life, makes the whole subject vastly interesting.

I think the accounts sent in by the individual health visitors speak of the development and success which is achieved by them in co-operation with the teachers and is progressing along the right lines and proving both interesting and absorbing to the children.

MEDICAL EXAMINATION OF TEACHERS

Full medical examinations (including chest X-ray) are required for certain senior teaching appointments, and for those either taking up a teaching post for the first time or who have had a break in service for a period of 12 months or more; the number of such examinations during the year was 155.

For teaching appointments other than above, the completion of a questionnaire and submission of a certificate of satisfactory chest X-ray is all that is required, and from the information supplied by the candidate an assessment is made whether a medical examination is necessary. During the year 92 such questionnaires were completed.

One hundred and thirty-eight medical examinations were also carried out of candidates for entry to teacher training colleges.

School Premises

Mr. Gordon S. Bessey, Director of Education, has supplied the following notes on school premises, meals and milk:

" New premises were provided for Langwathby C. of E. School, a 1st instalment of new premises was provided for St. John's C. of E. School, Crosscanonby, and a 1st instalment of remodelling of Bookwell Infants' School, Egremont, was completed.

" The managers completed the remodelling of Braithwaite School, Keswick, and the managers of St. Joseph's R.C. School, Cockermouth, provided a 1st instalment of new premises.

" The 3rd and 4th instalments of Workington College of Further Education were completed comprising assembly hall, library, kitchen and refectory and workshops. Newlands Secondary School was adapted and extended to provide accommodation for 680 girls.

" Temporary classrooms were erected at the following schools:—Cleator Moor, Montreal C. of E. Junior and Infants, Overend, Derwent, Hensingham Junior, Seaton St. Paul's C. of E. and Gosforth C. of E.

" A new scullery was provided at Holme Cultram Abbey C. of E. School and the kitchen was enlarged at Workington Grammar School.

" The lavatory and sanitary accommodation was improved at Longtown primary schools. Heating improvements were carried out and stainless steel sinks were installed at a number of schools.

School Meals

"During 1966 a mid-day meal continued to be made available for all children attending schools maintained by the Authority. A check undertaken on a day in Mid-September revealed that 86.97% of children present at school took advantage of this opportunity as compared with 84.1% on a similar day in 1965. Details of the figures for the day in September 1966, together with similar figures for the previous year, are set out below:—

	Primary and Nursery Schools			Secondary Schools			All schools combined		
Year	Number of children present	Number taking meals	Percentage taking meals	Number of children present	Number taking meals	Percentage taking meals	Number of children present	Number taking meals	Percentage taking meals
1966	21.247	17.949	84.5%	14.907	13.494	90.5%	36.154	31.443	86.97%
1965	20,726	16,793	81.4%	14,892	13,168	88.3%	35,618	29,961	84.1 %

"New building work, together with adaptation and improvement of existing premises, has continued throughout the year. The most important developments have been the provision of kitchens at Newlands School, Workington, and at the Nelson Thomlinson Grammar School, Wigton. By the end of 1966 the number of kitchens producing meals had reached 140. The improvement in facilities and in particular the reduction in the proportion of container meals being sent out from central and other kitchens has no doubt contributed towards the increased percentage of children taking meals.

"In January, 1966 the Department of Education and Science issued Circular 3/66 which gives guidance on the nutritional standard and content of school meals. The main recommendations are that the quantities of protein foods such as cheese, eggs and fish should be increased and that the quantity of dried milk, potatoes and cereals should be decreased. Steps have been taken to implement the recommendations whose aim is to improve the quality and variety of meal served.

Milk in Schools

"The figures given below show the consumption of milk by children present at maintained schools throughout the County on a day in September, 1966 and for a similar day in September, 1965:—

	Primary and Nursery Schools			Secondary Schools			All schools combined		
Year	Number of children present	Number taking milk	Percentage taking milk	Number of children present	Number taking milk	Percentage taking milk	Number of children present	Number taking milk	Percentage taking milk
1966	21,247	19,261	90.6%	15,213	8,180	53.7%	36,460	27,441	75.2 %
1965	20,726	19,060	91.9%	15,190	8,488	55.8%	35,916	27,548	76.7 %

There has again been a fall in the percentage of children taking milk.

The percentage of pasteurised milk as opposed to untreated milk consumed in schools again shows an improvement. The comparative figures for 1965 and 1966 are as follows:—

Pasteurised milk	1965	89%
	1966	92%
Untreated milk	1965	11%
	1966	8%

The above figures reflect a very important and sustained effort which the Director of Education has made during the year with my full support towards increasing the proportion of milk drunk in schools which is pasteurised. The figure of 92% represents a great deal of effort in searching out suppliers of pasteurised milk where originally only tenders for raw milk were obtained. It has been recognised however that there are certain situations in which it is unlikely to be possible to secure a supply of pasteurised milk, and with a view to dealing with these an experiment has been started in supplying sterilised milk which has a long "shelf" life, suitably flavoured as an alternative to milk which has not been heat treated. It is very interesting to note that this solution has been found quite acceptable by the majority of children to whom it has been offered, and I look forward to the not too distant date when it will be possible to claim that despite the fact that Cumberland is a widely scattered rural area, no children are drinking raw milk in schools.

Cases do come to light from time to time of proven brucellosis and I have welcomed the first steps by the Ministry of Agriculture, Fisheries and Food towards an eradication scheme for this disease in cattle. I am sure that improved and refined methods of diagnosis in the laboratory will confirm the fears of many medical officers of health, clinicians and directors of public health laboratories, that the incidence of this disease is greater than has ever been established

definitely in the past. If such confirmation can be forestalled by an eradication scheme and such measures as I have outlined above in schools, then this is all to the good, and is indeed a matter of urgency.

Physical Education

Miss E. C. McKelvie, after two years service in Cumberland, resigned in August to be married and carried with her the appreciation and good wishes of the Authority, the teachers and the children of Cumberland for her effort, time and energy on their behalf. Although she was here for only a relatively short period, her enthusiasm and help was gratefully received, both in schools and in the field of voluntary activity. In September, Cumberland welcomed Miss P. M. Staton when she assumed her duties as Woman Organiser of Physical Education.

Throughout the county, physical education is making its contribution to the education of the whole child through a deepening understanding and appreciation of breadth of content, method of approach, skill and teaching technique. The mind and body are trained to meet circumstances efficiently and effectively as they arise on the games field, and the fells, in the workshop and the classroom, in the office and the factory and on the farm. Physical recreation is recognised as a major vehicle for the social education of children and young people. The strong creative power in children is encouraged through expression of richness in dance, writing, gymnastics, movement, shape, colour, drama and craft.

In primary schools, following a planned programme of teachers' in-service training courses over the past two years, it is pleasing to report that this broad concept of physical education is being accepted enthusiastically, the kaleidoscope of activity involving agility, skill, self expression, dance, drama, music, art, strength and adventure has led to a balanced programme of movement in which children have become completely absorbed. The steady advance of the authority's policy to provide variety in equipment both large and small, to be used in spacious and hygienic indoor facilities has contributed in no small measure to the progress in primary physical education.

Because of facilities available, transport, opportunity and tradition in the past physical education at secondary level has tended to look very little further than gymnastics, movement, national games, athletics and swimming. Competitive sports

have been bastions of prestige and success. While, for the majority up to late adolescence, these activities have an immense appeal, their inclusion in a physical education programme is by popularity assured and their value personally and socially should not be denied, the demands of the changing interest of the adolescent, coupled with the needs of those pupils who do not have an aptitude for, nor enjoy traditional activities, makes some widening of the programme necessary. Especially is this applicable to girls where flexibility of approach is particularly important and where the capacity to be completely committed to a physical pursuit seldom obtains. The main need therefore, is to achieve some harmony between competitive team sports and the spread of new activities so that, on the one hand, inclinations and aptitudes are catered for and on the other, duplication of involvement and insufficient staff coverage are avoided. Further, by creating interval levels of competition it is possible to emphasise the pleasure of taking part in a game merely for enjoyment without denying the ablest their full opportunity.

It is pleasing to report that, in Cumberland, in addition to the wide variety of open country pursuits which are already being enjoyed by increasing numbers, such sports as archery, angling, badminton, golf, judo, table tennis and trampolining, sports of an individual and social character, are being introduced progressively into schools so that the principle of "personal choice in preparation for adult recreation" may be applied. There is also an increasing desire on the part of teachers to widen the inter-school programme to cover representative games at all age levels.

This broadening approach to physical education has been encouraged further by teachers' and youth leaders' courses in athletics, badminton, camping, canoe-rolling, rock-climbing, judo, rugby soccer, ski-ing and swimming. In swimming more than in any other sport is the paucity of facilities in Cumberland reflected in the results achieved. Where the joint efforts of school, authority and community had been engaged to provide a heated outdoor pool, the resultant benefit to the children has presented a full and rich reward for the perseverance and sacrifice of those concerned with the project.

APPENDIX 'A'

MEDICAL INSPECTION AND TREATMENT

Part 1—Medical Inspection of Pupils attending Maintained Primary and Secondary Schools (including Nursery and Special Schools)

Table A—Periodic Medical Inspections

Age Groups inspected (By year of birth) (1)	No. of Pupils who have received a full medical examination. (2)	PHYSICAL CONDITION OF PUPILS INSPECTED Satisfactory No. (3)	Unsatisfactory No. (4)	Pupils found to require treatment (excluding dental diseases and infestation with vermin): No. of Pupils found not to warrant a medical examination (See Note 1 above) (5)	For defective vision (excluding squint) (6)	For any other condition recorded at Part II (7)	Total individual pupils (8)
1962 and later	26	26	—	—	—	2	2
1961	1978	1978	—	—	48	167	215
1960	1540	1540	—	—	49	150	193
1959	227	227	—	—	7	32	39
1958	795	795	—	1344	46	95	143
1957	131	131	—	211	10	11	20
1956	731	731	—	—	30	72	98
1955	71	70	1	—	7	4	10
1954	580	580	—	1350	38	19	57
1953	101	101	—	220	8	8	15
1952	2556	2555	1	—	74	74	148
1951 and earlier	464	464	—	—	20	9	29
TOTAL	9200	9198	2	3125	337	643	969

Col. (3) total as a percentage of Col. (2) total=100 %
Col. (4) total as a percentage of Col. (2) total=0.02%

Table B—Other Inspections

Number of Special Inspections	2849
Number of Re-inspections	6972
Total	9821

Table C—Infestation with Vermin

(a) Total number of individual examinations of pupils in schools by school nurses or other authorised persons	93522
(b) Total number of individual pupils found to be infested	712
(c) Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2), Education Act, 1944)	33
(d) Number of individual pupils in respect of whom cleansing orders were issued (Section 54(3), Education Act, 1944)	1

Table D—Screening Tests of Vision and Hearing

1.	(a) Is the vision of entrants tested as a routine within their first year at school?	Yes.
	(b) If not, at what age is the first routine test carried out?	—
2.	At what age(s) is vision testing repeated during a child's school life?	At ages 8, 10 and 14.
3.	(a) Is colour vision testing undertaken?	Yes.
	(b) If so, at what age?	14) When choice of occupation or career
	(c) Are both boys and girls tested?	Yes) indicates testing advisable.
4.	(a) By whom is vision testing carried out? ...	School medical officers and school nurses.
	(b) By whom is colour vision testing carried out?	School medical officers and school nurses.
5.	(a) Is routine audiometric testing of entrants carried out within their first year at school? ...	Yes.
	(b) If not, at what age is the first routine audiometric test carried out?	—
	(c) By whom is audiometric testing carried out? ...	County Audiometricians.

Part II—Defects found by Periodic and Special Medical Inspections during the year.

Defect Code No.	Defects or Disease.	PERIODIC INSPECTIONS Entrants (T)	Entrants (O)	Leavers (T)	Leavers (O)	Others (T)	Others (O)	Total (T)	Total (O)	Special Inspection (T)	Special Inspection (O)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
4	Skin	16	97	11	94	22	96	49	287	6	13
5	Eyes—a. Vision ...	93	472	67	388	170	561	330	1421	24	53
	b. Squint ...	23	45	1	16	6	36	30	97	1	—
	c. Other ...	7	24	5	6	15	29	27	59	1	1
6	Ears—a. Hearing ...	42	207	6	39	42	121	90	367	14	19
	b. Otitis Media	8	75	1	17	4	24	13	116	—	—
	c. Other ...	6	45	2	20	11	36	19	101	—	—
7	Nose and Throat ...	35	486	4	141	17	295	56	922	2	—
8	Speech	38	102	6	20	20	47	64	169	10	4
9	Lymphathic Glands	—	106	—	20	1	29	1	155	—	—
10	Heart	7	113	2	62	5	94	14	269	—	—
11	Lungs	16	167	3	65	8	135	27	367	1	10
12	Developmental—										
	a. Hernia ...	3	19	1	2	4	7	8	28	—	—
	b. Other ...	4	115	7	24	7	79	18	218	2	4
13	Orthopaedic—										
	a. Posture ...	—	37	—	23	8	28	8	88	—	2
	b. Feet	75	171	14	49	41	92	130	312	7	3
	c. Other ...	25	160	7	60	20	83	52	303	2	4
14	Nervous System—										
	a. Epilepsy ...	—	4	—	6	1	14	1	24	—	—
	b. Other ...	—	17	—	13	2	18	2	48	—	1
15	Psychological—										
	a. Development	3	52	—	27	10	73	13	152	1	6
	b. Stability ...	9	138	1	19	13	121	23	278	3	15
16	Abdomen	4	35	1	15	8	39	13	89	—	2
17	Other	8	54	4	83	9	104	21	241	1	7

Part III—Treatment of Pupils attending maintained Primrary and Secondary Schools (including Nursery and Special Schools).

Table A—Eye Diseases, Defective Vision and Squint.

	Number of cases known to have been dealt with
External and other, excluding errors of refraction and squint	—
Errors of refraction (including squint) ...	3050
Total	3050
Number of pupils for whom spectacles were prescribed	1611

Table B—Diseases and Defects of Ear, Nose and Throat.

	Number of cases known to have been dealt with
Received operative treatment—	
(a) for diseases of the ear	11
(b) for adenoids and chronic tonsillitis	53
(c) for other nose and throat conditions	12
Received other forms of treatment ...	16
Total	92
Total number of pupils in schools who are known to have been provided with hearing aids:—	
(a) in 1965	6
(b) in previous years	108

Table C—Orthopaedic and Postural Defects.

	Number of cases known to have been treated
(a) Pupils treated at clinics or out-patients departments	1246
(b) Pupils treated at school for postural defects	—
Total	1246

Table D—Diseases of the Skin.

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

	Number of cases known to have been treated
Ringworm—(a) Scalp	—
(b) Body	—
Scabies	3
Impetigo	2
Other skin diseases	42
Total	47

Table E—Child Guidance Treatment.

	Number of cases known to have been treated
Pupils treated at Child Guidance Clinics	605

Table F—Speech Therapy.

	Number of cases known to have been treated
Pupils treated by speech therapists ...	585

Table G—Other Treatment Given.

	Number of cases known to have been dealt with
(a) Pupils with minor ailments ...	218
(b) Pupils who received convalescent treatment under School Health Service arrangements	87
(c) Pupils who received .BC.G. vaccination	1560
(d) Other than (a), (b) and (c) above	—
Total (a)—(d)	1865

Part IV—Dental Inspection and Treatment carried out by the Authority.

1. *Attendances and Treatment.*

	Ages 5 to 9	Ages 10 to 14	Ages 15 and over	Total
First visit	5,635	5,343	1,142	12,120
Subsequent visits ...	4,305	6,570	1,786	12,661
Total visits	9,940	11,913	2,928	24,781

Additional courses of treatment commenced	79	83	67	229
Fillings in permanent teeth	2,698	8,400	2,605	13,703
Fillings in deciduous teeth	2,413	278	—	2,691
Permanent teeth filled	2,379	7,594	2,086	12,059
Deciduous teeth filled	2,300	268	—	2,568
Permanent teeth extracted	903	2,214	514	3,631
Deciduous teeth extracted	6,552	1,270	—	7,822
General anaesthetics	1,474	599	42	2,115
Emergencies	496	313	88	897
Number of Pupils X-rayed				234
Prophylaxis				479
Teeth otherwise conserved				664
Number of teeth root filled				40
Inlays				30
Crowns				12
Courses of treatment completed				8,365

2. *Orthodontics.*

Cases remaining from previous year	275
New cases commenced during year	191
Cases completed during year	109
Cases discontinued during year	19
No. of removable appliances fitted	309
No. of fixed appliances fitted	2
No. referred to Hospital Consultant	217

3 *Prosthetics.*

	5 to 9	10 to 14	15 and over	Total
Pupils supplied with F.U. or F.L. (first time)	—	3	3	6
Pupils supplied with other dentures (first time)	3	95	42	140
No. of dentures supplied	3	98	45	146

4. *Anaesthetics.*

General anaesthetics administered by Dental Officers	1,813

5. *Inspections.*

(a) First inspection at school.	Number of pupils	30,259
(b) First inspection at clinic.	Number of pupils	1,357
Number of (a) + (b) found to require treatment		17,079
Number of (a) + (b) offered treatment		11,697
(c) Pupils re-inspected at school clinic		398
Number of (c) found to require treatment		111

6. *Sessions.*

Sessions devoted to treatment	3,049
Sessions devoted to inspection	258
Sessions devoted to Dental Health Education	18

APPENDIX B.

Handicapped Pupils requiring Education at Special Schools approved under Section 9(5) of the Education Act, 1944, or Boarding in Boarding Homes

During the calendar year ended 31st December, 1966.	(1) Blind (2) Partially sighted		(3) Deaf (4) Partial hearing		(5) Physically Handicapped (6) Delicate		(7) Maladjusted (8) E.S.N.		(9) Epileptic (10) Speech Defects		Total Cols. (1)-(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A. How many handicapped pupils were newly assessed as needing special educational treatment at special schools or in boarding homes?	—	1	1	—	1	—	1	20	1	—	25
B. (i) of the children included at A, how many were newly placed in special schools (other than hospital special schools or boarding homes?	—	—	—	—	—	—	—	5	—	—	5
(ii) of the children assessed prior to 1st January, 1966, how many were newly placed in special schools (other than hospital special schools) or boarding homes?	—	2	—	—	1	—	—	14	—	—	17
Total B(i) and B(ii) ...	—	2	—	—	1	—	—	19	—	—	22

During the calendar year ended 31st December, 1966.	(1) Blind (2) Partially sighted		(3) Deaf (4) Partial hearing		(5) Physically Handicapped (6) Delicate		(7) Maladjusted (8) E.S.N.		(9) Epileptic (10) Speech Defects		Total Cols. (1)-(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
On 19th January, 1967, how many handicapped pupils from the Authority's area:—											
C. (i) were requiring places in special schools—											
Total (a) day	—	—	—	—	—	—	—	35	—	—	35
(b) boarding ...	—	2	—	—	2	—	1	77	1	—	83
(ii) included at (i) had not reached the age of 5 and were awaiting—											
(a) day places	—	—	—	—	—	—	—	—	—	—	—
(b) boarding places ...	—	—	—	—	—	—	—	—	—	—	—
(iii) included at (i) who had reached the age of 5, but whose parents had refused consent to their admission to a special school, were awaiting—											
(a) day places	—	—	—	—	—	—	—	20	—	—	20
(b) boarding places ...	—	2	—	—	—	—	—	47	1	—	50
(iv) included at C(i) had been awaiting admission to special schools for more than one year—											
(a) day places	—	—	—	—	—	—	—	31	—	—	31
(b) boarding places ...	—	1	—	—	2	—	—	67	—	—	70

D. (i) (1) were on the registers of maintained special schools as—												
(a) day pupils	—	—	—	—	—	—	—	—	—	—	—	
(b) boarding pupils ...	—	—	—	—	1	—	—	80	—	—	81	
(2) non-maintained special schools as—												
(a) day pupils	—	—	—	—	—	—	—	—	—	—	—	
(b) boarding pupils ...	6	4	13	8	6	—	—	—	2	—	39	
(ii) were on the registers of independent schools under arrangements made by the Authority	—	—	—	—	6	—	—	1	—	—	7	
Total D(i) and D(ii) ...	6	4	13	8	13	—	—	81	2	—	127	
(iii) were boarded in homes and not already included under (i) and (ii) above	—	—	—	—	—	—	—	—	—	—	—	
Total D(i), (ii) and (iii) ...	6	4	13	8	13	—	—	81	2	—	127	
E. On or about 19th January, 1967, how many handicapped pupils (irrespective of the areas to which they belong) were being educated under arrangements made by the Authority in accordance with Section 56 of the Education Act, 1944												
(i) in hospitals	—	—	—	—	13	—	—	—	—	—	13	
(ii) in other groups (e.g. units for spastics, convalescent homes)	—	—	—	—	—	—	—	—	—	—	—	
(iii) at home	—	—	—	—	—	1	—	—	—	—	1	

APPENDIX C

SCHOOL HEALTH SERVICE CLINICS AS AT 31.12.66

(Actual school clinic work as distinct from special clinics is being carried out either in conjunction with child welfare clinic sessions or as specially required).

ALSTON:

Dental—2nd and 4th Tuesday—all day.

ASPATRIA:

Dental—2nd and 4th Friday—all day.
Orthopaedic Aftercare—4th Monday p.m.
Speech Therapy—Alternate Tuesday a.m.

BRAMPTON:

Dental—Each Tuesday and Wednesday—all day.
Orthopaedic Aftercare—1st Tuesday a.m.

CARLISLE:

Dental—Each Monday and Friday—all day.
At Eden School—as necessary.
At Caldew School—1st, 3rd and 5th Friday—all day.

Eye Specialist—Each Wednesday and Thursday a.m.

Orthoptic—Each Wednesday and Thursday a.m.; and each Friday p.m.

E.N.T. Specialist—Monday p.m. as required.

Child Guidance—Each Monday a.m.

Speech Therapy—Each Tuesday a.m.; each Thursday a.m.; each Friday a.m. alternate Tuesdays p.m.

Orthopaedic Aftercare—Each Tuesday p.m.

Orthopaedic Surgeon—1st Monday every odd month, p.m.; 1st Monday every fourth month a.m. and occasionally as required.

CLEATOR MOOR:

Dental—Each Wednesday—all day.
Orthopaedic Aftercare—1st and 3rd Tuesday p.m.

COCKERMOUTH:

Dental—Each Tuesday, Wednesday and Friday—all day.
Orthopaedic Aftercare—1st and 3rd Wednesday a.m.
Speech Therapy—Each Thursday all day.
Eye Specialist—2nd Friday a.m.

EGREMONT:

Dental—Each Thursday—all day.
Orthopaedic Aftercare—1st and 3rd Tuesday a.m.

KESWICK:

Dental—Each Thursday—all day.
Speech Therapy—2nd, 3rd and 4th Wednesday p.m.
Orthopaedic Aftercare—3rd Monday p.m.
Eye Specialist—1st Wednesday p.m.

LONGTOWN:

Dental—Each Monday—all day.
Orthopaedic—3rd Tuesday a.m.

MARYPORT:

Dental—Each Monday and Thursday—all day.
Speech Therapy—Alternate Wednesday p.m.
Orthopaedic Aftercare—Alternate Tuesday—all day.
Child Guidance—Alternate Monday p.m.

MILLOM:

Dental—Each Monday, Tuesday, Wednesday and Friday—all day.
Child Guidance—Thursday p.m. as required.
Orthopaedic Aftercare—4th Monday a.m.
Eye Specialist—1st and 3rd Friday a.m.

PENRITH:

Dental—Each Tuesday, Wednesday, Thursday and Friday—all day.

Speech Therapy—Each Tuesday—all day; each Wednesday a.m.

Orthopaedic Aftercare—2nd and 4th Wednesday a.m.; 1st and 3rd Thursday p.m.

Orthopaedic Surgeon—1st Monday every fourth month p.m.

Orthoptic—Each Wednesday—all day.

SEASCALE:

Dental—Each Thursday—all day.
Orthopaedic Aftercare—2nd Monday p.m.

SALTERBECK:

Dental—Each Monday and Thursday—all day.

SILLOTH:

Dental—1st, 2nd and 3rd Thursday—all day.
Orthopaedic Aftercare—4th Thursday p.m.

WHITEHAVEN (FLATT WALKS):

Dental—Each Monday, Wednesday, Thursday and Friday—all day.

Whitehaven Grammar School—Each Wednesday—all day.

School—Daily a.m. with medical officer attending each Wednesday morning.

Eye Specialist—Each Monday and Friday a.m.

Speech Therapy—Alternate Tuesday p.m.; Wednesday and Thursday—all day.

Orthopaedic Aftercare—Each Thursday—all day.

Orthopaedic Surgeon—1st Friday every odd month a.m.; 2nd Friday every even month a.m. and occasionally as required.

Child Guidance—Each Wednesday p.m.; each Friday a.m.

WHITEHAVEN (MIREHOUSE):

Dental—Monday—all day.

WIGTON:

Dental—Each Tuesday and Wednesday—all day.

Speech Therapy—Alternate Thursday a.m.

Orthopaedic Aftercare—3rd Friday a.m.

WORKINGTON (PARK LANE):

Dental—Each Monday, Tuesday, Wednesday and Friday all day.

School—Each Thursday a.m.

Speech Therapy—Each Monday—all day.

Orthopaedic Aftercare—Each Friday p.m.

Orthopaedic Surgeon—as arranged.

Child Guidance—Each Wednesday a.m.

WORKINGTON INFIRMARY:

Eye Clinic—Each Wednesday and Thursday a.m.

School Health Service

1967

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