[Report 1970] / School Medical Officer of Health, Sheffield City.

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

CITY OF SHEFFIELD EDUCATION COMMITTEE

SCHOOL HEALTH SERVICE

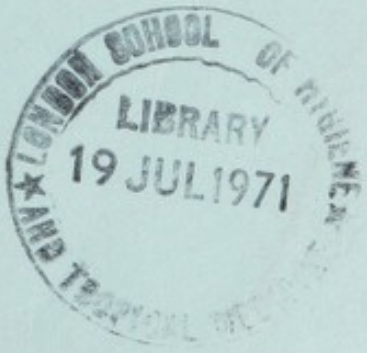
REPORT

of the

PRINCIPAL SCHOOL MEDICAL OFFICER
CLIFFORD H. SHAW, M.D., D.P.H., D.P.A

and the

CHIEF EDUCATION OFFICER
G. M. A HARRISON, M.A.



For the year ended 31st December, 1970

CITY OF SHEFFIELD EDUCATION COMMITTEE

SCHOOL HEALTH SERVICE

REPORT

of the

PRINCIPAL SCHOOL MEDICAL OFFICER
CLIFFORD H. SHAW, M.D., D.P.H., D.P.A.

and the

CHIEF EDUCATION OFFICER
G. M. A. HARRISON, M.A.

For the year ended 31st December, 1970

CITY OF SHEFFIELD EDUCATION COMMITTEE

SCHOOL SUB-COMMITTEE

Chairman — Ald. J. S. WORRALL, J.P.

Deputy-Chairman — Coun. P. M. N. JONES, M.B., B.S.

Coun. F. W. ADAMS

Mr. G. E. A. BEARDSHAW

Mrs. B. BUCHANAN

The Reverend Canon J. H. BURGESS, M.A., Ph.D.

Coun. L. COPE.

The Reverend F. DUCKWORTH, M.A.

Coun. Mrs. E. EVANS

Coun. R. ELLIS

Coun. Mrs. J. M. GRINDROD

Coun. J. R. W. GOODRAM

Coun. Mrs. E. A. HATTERSLEY

Coun. F. R. HATTERSLEY

Coun. P. HORTON, B.Sc.

Ald. P. H. JACKSON, M.A.

Mr. J. R. LONG, O.B.E., T.D.

The Very Reverend Canon B. McGILLICUDDY

Ald. W. OWEN, J.P.

Coun. Mrs. E. A. RICHARDSON

Coun. Miss P. M. SANTHOUSE

Mr. D. SPOONER

Coun. W. G. WALKER, M.A.

INTRODUCTION

The future of the School Health Service has been in doubt since the Green Paper recommended that the work of the Service should be transferred to area health authorities. This recommendation led the Education Committee to give most serious consideration to the role of the school health service and its contribution to the education service generally.

At their meeting in April 1970, the Committee commented on four main aspects of the health service, the provision of treatment clinics for school children, first aid in schools, health education, and medico-educational assessment and advice. It may perhaps be helpful to summarise its views on these four aspects of the service.

(i) The proposed transfer of treatment clinics raised serious issues and the Committee feared that the treatment available to school children would suffer.

(ii) Schools need some provision for first aid, and the Committee would consider what form this should take.

(iii) Provision for health education should be fully integrated with a school's normal programme of education, and any specialist staff employed in health education ought to be full members of a school's staff.

(iv) Medico-educational assessment and advice required the services of fully qualified medical staff who should either be employed by the local authority or be seconded to it for periods long enough for them to develop understanding of educational issues.

In this last area particularly the interrelationship of medical and educational experts is of greatest value; in advising on the Authority's provision for special education for handicapped children of every kind, in planning individual schools, in guiding individual children and their parents to the most appropriate education, and in helping education officers to appreciate the educational significance of physical or mental handicap, the officers of the school health service make a distinctive and uniquely valuable contribution.

It is because this aspect of the work of the school health service seems outstandingly important that this year the report of the Principal School Medical Officer has given way to a joint report by the Principal School Medical Officer and the Chief Education Officer. This report emphasises the areas in which the skills of medicine and education are

brought together for a common purpose. The preparation of this joint report has led to certain changes in the content and presentation of the report.

Since significant developments occur in only some areas of the service in any year, and it seems worth reporting at some length on these significant developments, this report makes no attempt to cover the whole range of our joint activities. Instead, it concentrates on a number of major problems and developments of the last year or two. Subsequent reports will concentrate in turn on other aspects of the service. In this way, a series of consecutive reports will give a very full and informed view of the whole service.

Three events during the year need a special mention. During the year two new special units were opened for children with problems. Broad Elms School, the day school for maladjusted children which had started in temporary accommodation at East Hill, transferred to new purpose built premises at the beginning of the year and has been building up numbers since. It was opened by Dr. Oates, Senior School Medical Officer from 1958 to 1967, who was responsible for the initial planning stages of the school and who has always taken a great interest in this particular field. The ceremony occurred 40 years after she was first appointed a School Medical Officer.

Secondly, the Education Committee opened a new centre for learning difficulties, which is intended to develop as an educational centre which will co-ordinate with the service provided by the hospital in assessing handicapped children, the Head Teacher having a brief to co-ordinate with Dr. Trevor Wright at Ryegate. The purpose of this centre is to observe the children in the school setting to make an on-going assessment regarding a suitable placement for the children in their later school career. Admissions are at the moment limited to school entrants.

Finally, it is a fitting opportunity to pay tribute to the work of Dr. Swallow, who retired at the end of September. She has pioneered the development of an audiology service which has successfully harnessed the talents of teachers, technicians, nurses and doctors working in both the school and hospital setting.

CLIFFORD H. SHAW
Principal School Medical Officer
G. M. A. HARRISON
Chief Education Officer

OPEN EDUCATION FOR THE BLIND

'It is useless to close the gates against ideas; they overleap them'
Klemens Von Metternich

Sheffield is one of the very few local authorities which maintain a primary school for blind children. Until 1969 all pupils had to leave at about twelve to go to secondary schools in other parts of the country. The Committee then agreed to a limited experiment which would enable a few carefully selected pupils to go to a Sheffield comprehensive school, Tapton, for their secondary course. This article describes some of the problems of educating blind children in this way, and how they have been overcome.

Children who have a visual handicap to a degree that they cannot read even large print obviously require teaching techniques which may differ widely from ordinary teaching methods. These educationally blind children have customarily been placed in special schools where special facilities are available. Nevertheless, it must not be forgotten that ultimately these children will grow up and have to learn to live in the community, and teaching staff in Special Education are only too aware that with many children there are factors in the special school which limit the full extent of their ability and development. These factors include the small size of the schools, the help that the child comes to expect, and the lack of comparison with ordinary children. This aspect has tended to be forgotten in the battle to provide adequate provision for handicapped children. Indeed, though the concept of educating blind children in ordinary schools is not new, it has been developed more because of the lack of resources to set up an adequate special school system than as a deliberate attempt to integrate blind children into the community. On the Eastern seaboard of America, when the heavy incidence of retrolental fibroplasia occured, or in present developing countries, the alternative to being educated in the ordinary school is no schooling at all. Therefore there has been no question of considering the virtues of open education as opposed to the special school.

So, as a deliberate move to augment the special school system, we are breaking new ground and the problems must not be underestimated. The first trial of the concept in this country was at the Roman Catholic St. Vincent's School for blind and partially sighted children at Liverpool. This all-age school has provision for secondary pupils but no provision or facilities for children of grammar school ability. Such children had to leave and finish their education in an undenominational school. As a grammar school for boys and another for girls existed alongside the special school, it seemed a logical step to admit some of them to these schools though they remained based on and resident at the special school. The result with

carefully selected children of above average intelligence was extremely successful, but of course the system is limited to those children who can hold their own in a grammar school setting.

In Sheffield the possibilities are wider, in that these children are admitted to a comprehensive school and selection is less limited by intellect. It must be realised, however, that open education will never be a suitable alternative for all children, and intelligence plays an important part in the child learning to overcome his handicap. More important, however, are the inherent emotional stability of the child and stable supportive home background. Without these, the child will inevitably become lost, confused and frustrated.

In experience the child must have overcome the great obstacle of communication. He must be able to read and to take notes and thus have a good command of braille, but he must also be able to communicate his knowledge not only verbally but also in written work to teachers and others who do not understand braille. To communicate he must have ability in using a typewriter. Integrated or open education has indeed only become a viable proposition for the blind child since the development of modern technical aids like the Perkins Upward Braille Writer and other apparatus mentioned below which really have given him the ability to record almost as freely as seeing children. He is further helped in this field by the provision of modern light-weight transistorized pocket tape recorders.

Finally the child must have adequate mobility, and today it is possible to achieve high standards of mobility hitherto regarded as generally impossible. Efforts have been made for nearly two centuries to improve the blind man's mobility. His ability to develop a sense of obstacle has been known though not fully understood for many years. Those who have some residual vision have usually been much more mobile than the totally blind. Now fresh insight into the problems of mobility, a new approach to the development of a sense of orientation and the whole new Travel technique have made it possible for even totally blind adults and children to move efficiently and safely through busy city streets and to use all forms of public transport.

The visually handicapped children can now travel to and from their comprehensive school unaided and in safety; furthermore their new techniques enable them to move freely around over the large complex of a comprehensive school without becoming bewildered or dependent on others.

This points to the fact that integration of the blind child into the community requires training in the earlier school years. It also means an educational programme at the primary stage which is comparable in diversity

to that of the sighted child. Concepts normally taught visually, particularly in mathematics and geography, must be translated into tactile means. This is obviously desirable for all blind children, but is far more important to those children who will subsequently go to an ordinary school. Development of apparatus such as the Thermoform, which makes it possible to produce not only braille but diagrams, graphs and maps, and special surfaces which when drawn upon leave palpable lines, e.g. Melinex, have helped greatly in this field, but a major step forward has been made in teaching techniques which has been very important to give these children the balanced educational grounding necessary to succeed in the secondary field. This great advance in teaching techniques has been accompanied in turn by the introduction of many new teaching aids and the stimulation of research. All these factors make the visually handicapped child increasingly competent and independent.

Obviously the adaptation of the curriculum of the secondary school must be limited, as the purpose of open education is not just the mere physical placement of the child in the secondary school, but making him an integral part of the school. Standard text books and reference books must be used, all of which have to be translated into braille. This was perhaps the biggest problem in starting the project. Blackboard work and other visual methods, however, cannot always be anticipated in the same way, and these children need the help of a specialist teacher trained in blind methods who can advise and co-ordinate with the teachers in the school. This Resource Teacher plays a vital role in the concept of open education, and the success of the scheme depends on his ability to overcome those problems which have not, or cannot be, anticipated, particularly at the inception of such a scheme.

The Resource Teacher needs to be supported by a school or centre for the visually handicapped with specialised aids and specialised knowledge and with the equipment to help in the production of braille print and diagrams which is vital to his work.

For the scheme to be successful the full co-operation and willing support of the host school to which the visually handicapped children are introduced are necessary. It is a logical extension of the principle behind the comprehensive school to extend its services to handicapped children wherever appropriate and suitable. Teachers in such establishments do seem to reflect the outward looking attitude of modern times. Certainly at Tapton School, the staff have not only extended the hand of friendship but those involved have developed a real concern for the full growth of the handicapped children. Three children were admitted to Tapton school in September 1969 and a fourth in September 1970, and all

have shown every sign of integrating well with the school and the local community. There seems every chance, therefore, that the scheme will develop and extend in the future, with benefit not only to the children who are able to take advantage of this scheme but to normal children, their parents, and not least the staff of the ordinary school learning to live with the handicapped.

EDUCATION OF CHILDREN WITH HEARING IMPEDIMENTS

'Kindness: a language which the dumb can speak, and the deaf can understand'
Christian Bovee

Sheffield has a well developed provision for both deaf and partially hearing children. Facilities for the educaton of deaf children were first provided in a house in Crookes in 1919. This development was largely due to the work of Miss Maud E. Maxfield, M.A., J.P., who was at that time Deputy Chairman of the School Medical Service Committee and Chairman of the Special Schools Section. In 1922, the Sheffield Education Committee took responsibility for this work and a house was bought and adapted as a school for 80 children and was named the Maud Maxfield School. This was one of the first local authority day schools for deaf children in this country. Its original premises were destroyed by enemy action in 1940 and from then until 1951 the school worked in temporary premises. In 1951 it moved to new buildings in Ringinglow Road and so was one of the first special schools to move into purpose built premises after the Second World War.

One of the most important recent developments has been the extension of nursery facilities. Doctors and educationists have become increasingly aware of the need to discover hearing impairments at the earliest possible moment, because a deaf child misses many of the stimuli experienced by other young children. Children referred to the Audiology Clinic are diagnosed and, if assessed as severely or profoundly deaf, are given pre-school training at the clinic. This training is often backed with visits to the child's home to give help and advice to the parents. The aim of this training is to equip the child to enter the nursery at Maud Maxfield.

The usual age for admission is shortly after the third birthday but the main criterion is whether the child is ready for school, socially, emotionally, mentally and physically. Children are seen by the headteacher and his deputy, who is in charge of admissions, and this may involve several introductory visits to the school with one or both parents.

Extensions in 1969 enabled the school to start a third nursery class and there is now room for 24 children. At present 22 of these are five or under and two are slightly older boys with multiple handicaps. The nursery caters like the rest of the school for some children from outside Sheffield and five of these are weekly boarders.

Another most important aspect of this service is the Committee's provision for partially hearing children. In 1962 facilities for partially hearing children between 7 and 11 years of age were provided in a new

unit at Hunters Bar Junior School and in 1965 those facilities were extended for children between 11 and 15 years of age by the opening of another Partially Hearing Unit at Greystones Secondary School.

As a result of the reorganisation of secondary education in 1969, most of the children from Greystones Secondary School moved to King Ecgbert School and the children in the Greystones Partially Hearing Unit moved with them to King Ecgbert's and a Partially Hearing Unit was established there for them.

At the same time changes in Hunters Bar School necessitated the transfer of the Partially Hearing Unit from the School and this was moved into the Greystones Middle School for children between 8 and 12 years of age, and a new Partially Hearing Unit for children between 5 and 8 years of age was opened in the adjacent Greystones First School.

As the children from Greystones move on for their secondary education to High Storrs School a Partially Hearing Unit was opened there in September 1970, so it is now possible for children entering the Partially Hearing Unit in the Greystones First School to go on with their normal hearing colleagues through the appropriate middle and secondary schools. In addition to the children in the Maud Maxfield School and in the Partially Hearing Units there are also children with hearing impairments in our normal schools, and to help these children and their teachers a peripatetic teacher was appointed in 1969. At that same time a peripatetic teacher was also appointed to work with hearing impaired pre-school children and their parents. These peripatetic teachers are qualified teachers of the deaf and are on the staff of the Maud Maxfield School, whose Headmaster has undertaken responsibility for staffing the Partially Hearing Units and for keeping them equipped with teaching aids suitable for use with hearing impaired children.

These developments have now established a comprehensive service for hearing impaired children throughout the City and enabled early individual consideration to be given to each child's needs.

THE PROBLEM OF INCONTINENCE

'A human being; an ingenious assembly of portable plumbing'
'Human Being'—Christopher Morley

Mossbrook School is listed by the Department of Education and Science as a School for the Physically Handicapped. Although this name is basically correct, Mossbrook is designed specifically for Spina Bifida children and was the first such school to be provided by a local education authority. Most of the boys and girls suffer from crippling physical handicaps in varying degrees but all are subject to urinary and faecal incontinence. This incontinence is the most frustrating part of the handicap and socially unacceptable.

Paralysis of both anal and bladder sphincters occurs in the majority of children with a meningomyelocele. Micturition can neither be inhibited nor initiated and the child may suffer from constant or intermittent dribbling with short periods of dryness. Lack of feeling in the bowel means that there is no discomfort or urge to defecate as in a normal person. The resulting disturbance of bowel function means unpredictable constipation, diarrhoea and involuntary defecation. These handicaps are most distressing for the child and his family. The effects on the child's emotional outlook and education can be catastrophic. Much of the work of the social and medical staff at Mossbrook School is concerned with treatment and training in bowel management.

Although bowel incontinence is more unpleasant there is no threat to the child's life, as there could be in the case of renal failure resulting from infection of the urinary tract. Urinary control may therefore be governed by the condition of the bladder and the degree or lack of bladder contractions. During the first few years of life studies of the urinary tract are undertaken at the Children's Hospital, Sheffield. Cystograms and renograms help to detect obstruction or recurrent infection and the child entering school at the age of three or four usually has a good urine flow.

Children at the nursery stage wear disposable or terry towelling nappies which are changed frequently. Their bladders are expressed by gentle pressure above the dome of the bladder. This complete bladder emptying reduces the chance of bacteria multiplying in the residual urine. Expressing is done with great care as undue pressure can produce reflux into the ureters with resulting kidney damage. Good drinking habits are encouraged at this stage to ensure a good urine flow.

Further control is achieved later by the fitting of urine collecting bags. Boys are fitted with penile bags which are strapped to the thigh

and emptied periodically through a small tap at the bottom of the bag. Self expression is taught and this is done usually in sitting position in many cases when the bowels are being evacuated.

Management of urine collection in girls is more complicated because of their anatomy. Catheters such as Foley's work well but their effectiveness is limited. Introducing appliances into the bladder increases the risk of infection and mucus formation may cause an obstruction in the catheter. In the girls it is almost always necessary to divert the urinary stream into a small piece of the ileum bringing this through the abdominal wall. The urine is collected in a bag which is worn on an abdominal felt and firmly secured to a latex disc which adheres to the skin surrounding the stoma.

Bowel management is obtained by a combination of diet regulation, suppositories and a planned evacuation period. A daily morning routine is established and carefully checked by the nursing staff. Parents are consulted and encouraged to co-operate in the working of the schedule during holidays—all these precautions ensure that the child is taught little by little, the self-discipline needed for adequate control of incontinence. The older children bath themselves and check for pressure sores. Not only do they empty their appliances but they change, cleanse and adjust them unaided. As an added precaution a sample of each child's urine is sent monthly, in a specially designed container to the Children's Hospital for testing. Where there is a suspicion of infection samples are sent without delay. This is an example of the excellent liaison between school and hospital, and how the children are made aware of the risk of urine infection and the necessity for this testing after leaving school.

Control has been so well established that school journeys are taken for longer periods over greater distances. The school coach is fitted with curtains and a fold up table to cope with emergencies and avoid possible embarrassment. Swimming is a thriving, popular item of the school curriculum due mainly to efficient incontinence control. Before entering the swimming bath each child's daily bowel record is checked and the bladder expressed. This ensures that urine will not dribble for at least twenty minutes—the length of the average swimming period.

A healthy and socially acceptable method of incontinence control is therefore working well, promising a brighter future for the spina bifida child when he can attain the highest possible degree of independence in daily living.

THE EDUCATION OF SEVERELY SUBNORMAL CHILDREN

'Do not wish to be anything but what you are, and try to be that perfectly'
St. Francis de Sales

Section 57 of the Education Act 1944 required local authorities to have medically examined any child who appeared to be "suffering from a disability of mind of such a nature or to such an extent as to make him incapable of receiving education at school" and, if it was found that such a child was "incapable of receiving education", to exclude that child from the education service. As a result, approximately 1% of children were excluded from school. To assist those children and their parents an increasing number of local authority Health Committees provided training centres.

It was soon found that training was necessary for the staff of those centres and as a result of this need there developed training courses for teachers of the mentally handicapped, but by September 1968 of a total of 2,800 Supervisors and Assistant Supervisors employed in such training centres, only about 950 had obtained the Diploma of the Training Council for Teachers of the Mentally Handicapped after a one or two year course of training, The children in those centres were, therefore, outside the normal educational service, and their teachers were trained under a separate system from that through which teachers are prepared for work in our schools.

Since the early 1950's, research has been going on into the amelioration of severe subnormality especially by such pioneers as Professor J. Tizard, Dr. N. O'Connor and Professor A. D. B. Clarke and they have shown that given the right conditions and teaching methods, considerable improvements can be achieved with many severely subnormal children. Professor Clarke has written that:— "Even those who have had many years experience of the S.S.N., are continually getting surprised at what such people can do, granted proper facilities and it seems to me that there remains a general tendency in all of us to under-estimate what could be done with and for the S.S.N."

Important new work is now being undertaken into the learning processes of the severely subnormal at the Hester Adrian Research Centre at Manchester University and the preliminary reports confirm the earlier findings. As a result of these developments and of a widespread desire to extend the educational services to provide for mentally handicapped children the Education (Handicapped Children) Act 1970 makes provision to bring within the educational system those children who have or would previously

have been determined as being unsuitable for education at school. This change is to take effect on 1st April 1971, and is very much welcomed by the Education Committee.

In Sheffield the immediate effect of this change will be the transfer of Norfolk Park and Talbot Junior Training Centres. Both these centres cater for mentally handicapped children between 5 and 16 years of age. Norfolk Park which was opened in 1963 now provides for 125 children together with facilities in a special care unit for a further 40 children who are both physically and mentally handicapped. Talbot was opened in 1969 for 120 mentally handicapped. In addition there are approximately 50 children in the City whose parents have never wanted them to attend these centres. The Education Committee now has a responsibility for providing facilities for these children.

The Education (Handicapped Children) Act 1970 also requires Education Committees to make suitable provisions for the education of mentally handicapped children in hospitals. Some mentally handicapped children have been sent from Sheffield to hospitals in other parts of the country but approximately 36 are in Thundercliffe Grange which is just within the boundaries of Rotherham County Borough. There are also 36 mentally handicapped children in St. Joseph's Hospital in Walkley and, although only seven of those are Sheffield children, the Sheffield Education Committee will become responsible for the educational provision for all of the children in that hospital from 1st April, 1971.

These new responsibilities present varied and difficult problems to both the Education Committee and its officers. There has been close co-operation for some time between the Health and Education Departments over the appointment of staff and provision of in-service courses, and detailed arrangements for the transfer are already well advanced.

WORK PREPARATION SCHEME FOR HANDICAPPED SCHOOL LEAVERS

'The only argument available with an east wind is to put on your overcoat'
'Democracy'—James Russell Lowell

In April 1969 Sheffield became one of the country's first authorities to prepare a work preparation scheme for mentally or physically handicapped school leavers. Following discussions with representatives of the Department of Employment and Productivity it was agreed that up to fifteen boys and girls should attend the Industrial Rehabilitation Unit for a course lasting about one term. Three groups could therefore attend the Unit each year.

The scheme is intended to help young people who are unlikely to settle in employment without a special course. Those who are capable of settling in employment direct from school and those who are considered unemployable are excluded from the scheme.

The Education Committee agreed to provide a full-time teacher to undertake the continued education of young people taking part, and the Department of Employment and Productivity provided a carefully selected Industrial Rehabilitation Unit supervisor to oversee the workshop activities.

Initial selection for the courses has been made by the careers officer who is responsible for work with handicapped young people in consultation with headteachers and the Senior School Medical Officer. Close liaison has been maintained throughout with the Manager of the Industrial Rehabilitation Unit and the teacher attached to the course, and regular case conferences have been held to discuss the progress of individual boys and girls.

Five courses have now been completed. They have been of great benefit to the young people attending and with few exceptions it has been possible to find suitable employment for the young people concerned on completion of their course. The following table gives brief details of the young people who have attended the courses between April 1969 and November 1970.

	Boys	Girls	Total
Number who have attended courses ...	55	16	71
Number who have found employment after completion of course	50	15	65
Transferred to other areas	2	—	2
Further training	1	—	1
Unemployed	1	1	2
Deceased	1	—	1
	55	16	71

VACCINATION AND IMMUNISATION

'It is always a great mistake to command when you are not sure you will be obeyed'
Honore Gabriel de Riquetti, Comte de Mirabeau

The terms vaccination, immunisation and inoculation are often accepted by the lay public as synonymous and vaccination as appertaining only to protection against smallpox. To inoculate we mean to engraft, implant, or impregnate with a virus or germ of a disease. This term was specifically used in 1722 for the purpose of inducing a milder form of the disease and rendering the subject immune. The year before in 1721 variolation (inoculation with material from smallpox lesions) had been introduced into this country by Lady Wortley Montague, wife of the Turkish Ambassador. Originally an eastern practice, this soon fell into disrepute as fatal cases of smallpox occurred and the disease often spread rapidly. In 1796 Jenner demonstrated protection against smallpox by inoculation with cowpox. Towards the end of the eighteenth century vaccine inoculation was described as vaccination (a word derived from the Latin 'vacca'—a cow), but it was not until 1891 that the word vaccination was associated with any particular virus. To the purist a vaccine is the virus of cowpox purified and used by inoculation to confer immunity against smallpox. However, the term has now been extended to denote a modified or attenuated virus or bacterium suspension, which is incapable of producing a severe infection, but affords protection when inoculated against the action of the unmodified virus or bacterium. The ideal vaccine should produce maximum protection to a maximum number of the community for a lifetime with a minimum of inconvenience and no hazard, or a risk which is insignificant compared with that of the disease proper. It is obvious that the production of a satisfactory vaccine which will provide adequate protection against a specific infection sometimes entails the achievement of a delicate balance between the immunity required and the side effects or potential vaccine hazard.

Parents and teaching staff may question the need for the concentration of preventive procedures on the school population and wonder why these could not have been completed before school entrance. Some of the advantages in carrying them out in schools are clear, others less tangible. In order to maintain a satisfactory level of immunity 'booster' doses of the immunising agent are essential. School children constitute a captive population, which is easily organised, readily available, and educated in preventive procedures. This is a situation which minimises administrative problems and helps ensure a maximum protection and acceptance. At the same time the accurate and complete recording of these procedures is facilitated and there is a most efficient utilisation of staff, although it is recognised that some disruption of education is inevitable when immunisation

programmes are carried out in school time. Protection of the school child often indirectly benefits the other members of the family, as is exemplified in measles vaccination, where the non-immune infant, who can be severely ill with this condition, is safeguarded by his immune elder siblings. Educational aspects of vaccination procedures, such as explanation to the children of the need and effect of these measures can be undertaken during sessions. One of our principal aims in the practice of immunisation, in addition to community protection, is of course the maintenance of a healthy child at school with minimal absence. It may, therefore, serve a useful purpose to consider the current role of immunisation in the control of some of the diseases which frequently affect school children.

The common cold, influenza and other respiratory viruses, measles, mumps, chickenpox, rubella, whooping cough, infective hepatitis, gastro-enteritis and the dysenteries, are amongst the common infections causing children illness and school absence. Today, in this country, as a result of a combination of adequate vaccination and immunisation, improved living standards, new antibiotics, and the sustained efforts of practitioners in the public health and school health fields, such conditions as poliomyelitis, diphtheria and scarlet fever have been successfully contained. A case of poliomyelitis is a rarity, but in sharp contrast the incidence in some tropical countries and under-privileged areas of South America appears to be static or rising. Air travel allows easy access into this country of persons who could be incubating this disease, so we have no grounds for complacency and must maintain the immune status of our child population at its present satisfactory high level. The immunisation schedule recommended in Sheffield is based on experience which indicated that a more satisfactory immune response was attained with intervals of six to twelve weeks between the first and second doses, and six to twelve months before the second and third doses of poliomyelitis vaccine. It was concluded that following such a course, immunity would last for several years, but might decline after five years. Poliomyelitis still kills or cripples untold thousands of children in Africa, Asia and Latin America, in spite of the fact that polio vaccine is obtainable for the equivalent of 1½d. a dose or less. Our school immunisation programme, if fully pursued, will ensure this state of health affairs cannot occur in Great Britain.

The multiplicity of rhino viruses (ninety or more in number) which cause common colds, would seem at present to obviate the possibility of producing a successful vaccine. Influenza with its high infectivity, ability to spread rapidly, change form and present in a variable fashion, although constituting in the main a threat to our elderly, also accounts during epidemics for a fair absenteeism amongst schoolchildren and, as

yet, is not capable of being effectively controlled. Work is still very active in this field and the use of a live, attenuated (modified) vaccine administered by nasal spray has been explored in the U.S.S.R. This produces local and circulating antibody, a useful degree of protection, but may at the same time result in a 'mild illness' which would limit its acceptability. It would appear, therefore, that we shall have to rely in the immediate future on the use of the existing vaccine, which is given by injection, to protect key workers and persons at special risk. The World Health Organisation has developed a system of early warning of outbreaks occurring in other countries and caused by new or modified viruses.

Measles vaccination is available, safe, easily administered, and can be given from the second year of life onwards, but its acceptance and full potential is seriously handicapped by incomplete medical acknowledgment at field level, and an ingrained public belief that the condition is 'inevitable', and must be borne with fortitude as generations before bore it. This is a condition that can be eradicated but, like all virus infections where there is only a half-hearted acceptance of the protection, the virus will survive and may ultimately change its form. While a reservoir of infection persists in our school children the susceptible infant sibling, too young for effective vaccination, and prone to complications, will remain at risk.

Mumps virus can now be cultured and a satisfactory vaccine has been developed, but this is not a severe illness and sequelae, pancreatitis or a viral meningitis are unusual. The latter, however, can cause concern, and accounts for a fair proportion of cases of viral meningitis every year. Orchitis is a complication which is not uncommon in older children. School days lost from this condition are difficult to evaluate, since it is not notifiable and the exclusion advised is seven days after subsidence of all swelling, which may be fleeting or in contrast persistent.

Whooping cough again, in general, is a mild illness when affecting a school child, but can be a killer in the infant sibling acquiring the infection. The organism causing whooping cough is Bordetella pertussis, and all three types of this have been incorporated in our triple vaccine. In spite of this, mild outbreaks occur, casting doubt over the efficacy of the vaccine and arousing suspicion that the condition may be of multiple aetiology. Adenoviruses 1, 2, 3 and 5 for example, can produce a similar clinical picture. These cases are less common than the bacterial form of the disease, but may account for some attacks which occur in fully immunised children. This year 191 out of 448 notified cases of whooping cough were aged five years and over. This alone could have resulted in a loss of 4,000 school days in the last three months of the year.

'Infective jaundice' embracing both infective and serum hepatitis affected 287 persons in Sheffield, and of these 149 were aged between 5 and 14 years. Cartographs of the 1969 and 1970 cases vividly illustrate how school children provide a smouldering focus of infection, allowing the virus to persist in the community. The discovery of the Australian S.H. or hepatitis associated (HAA) antigen, first in the blood of an aboriginal and subsequently in that of other convalescents of virus hepatitis as well as serum known to transmit the disease aroused hopes of virus isolation in the near future, and the production of a vaccine with a possibility of control. The significance of this finding, however, is not yet clear, although active research which is being carried out in these fields is very promising. Gammaglobulin has been used successfully in other areas to control residential school outbreaks of infective hepatitis, and in Sheffield to protect children at special risk—namely a family of juvenile diabetics and the pupils and staff of one of the junior training centres who had been exposed to infection.

A growing body of medical opinion doubts whether infant vaccination is justified in a country normally free from smallpox. The Joint Committee on Vaccination and Immunisation recommended that if smallpox vaccination is to take place it should be thorough and effective, and advised re-vaccination on school entry and on leaving school. This would ensure a reasonable degree of herd immunity, be of value in limiting the spread of infection, and together with ring vaccination of case contacts, perhaps prevent the hysterical demand for vaccination that invariably occurs whenever a new case of smallpox is reported in Great Britain.

The use of rubella vaccine to protect future mothers from German measles (at present offered to thirteen year old school girls) will prevent many babies being born deaf, mentally subnormal, blind, with heart defects or other manifestations of the congenital rubella syndrome. Rubella is a benign illness and it would not be easy to justify the use of a vaccine for its control alone, but here the secondary benefits are paramount.

Vaccination against tuberculosis involves an intradermal injection, but it is well accepted in eleven year old children, to whom it is offered in Sheffield. The reasons for this may well lie in the school child being conditioned to mass protection procedures, the need to conform, parental recollection of a death through tuberculosis in the family, together with the occasional notified case in the community acting as a lingering reminder. It has been postulated that other advantages, in addition to the beneficial effects on the incidence of tuberculosis, may accrue from the use of B.C.G., such as some protection against leprosy and possibly other conditions. The future may see this vaccine being reserved for people at special risk,

such as household contacts of cases of open tuberculosis, nurses, doctors, and prison inmates with reliance on improved standards of housing, nutrition, contact tracing, milk pasteurisation, and effective treatment of cases on the lines of the Holland experience. It must not be forgotten, however, that tuberculosis still remains a problem in under-privileged countries and air travel provides easy access to this country for persons who may be incubating the disease.

The publication of detailed statistics on the vaccination and immunisation status of the school community may serve only to confuse; for example, a change of schedule from the second, third and fourth months to the fourth, sixth and twelfth months will result in less children completing a full course of primary immunisation in the year in question. Here superficial examination of the figures, without the necessary background knowledge, can cause concern over an apparent lack of adequate protection.

Inevitably the immunity, however satisfactory, wanes—albeit to a variable degree with differing vaccines—and 'booster' doses of the immunising agent are required at intervals to maintain a satisfactory immune status. Failure to achieve this in the school child could result in a susceptible adult population.

Parental attitude towards artificial protection is of vital importance in achieving maximum protection. 'The child is father of the man' (William Wordsworth), and it could well be that an offer of protection procedures at school inculcates acceptance of the procedures and leads to a future generation of preventive-minded parents, who perceive and have experienced the advantages of immunisation. Desiring the best for one's children is a commendable aspiration, and this motive force can be used to ensure a better acceptance of protection in the school age group than at any other period in life. It is not fully appreciated that the adult community is protected from many infectious diseases by the sterile shield the immune child population provides. Complacency in later life results in a falling off in the acceptance of protective procedures, until confrontation with a major disaster or a killer disease precipitates urgent demands for these, and at the same time a realisation of their true value. Another significant factor determining acceptance is the availability of a safe, oral vaccine, since even with the sharpest of needles an injection is still unacceptable to many.

Whether or not we attempt immunisation against every illness will depend on the severity of the disease, the identification and growth of a causative agent, the possibility of its modification or attenuation,

the safety of application of the vaccine, its humane or economical justification, and finally its acceptability. Every vaccination and immunisation programme needs continued control, assessment and monitoring so that we are immediately aware of a change of character of the pathogen, or a poor or failing quality of protection afforded by a particular vaccine. The objectives of our protection campaigns are often obscured by a multiplicity of factors, some practical, some emotional, others material, ranging from the demonstration of the cause of a condition to acceptance of the vaccine. Bacteria and viruses by contrast have simple goals in the struggle—they merely modify, reproduce and infect to survive.

SCHOOL DENTAL SERVICE

'To bring up a child in the way he should go, travel that way yourself once in a while'
Josh Billings

It was said recently that the key to the successful control of dental caries is prevention, achieved by the fluoridation of water supplies, topical application of fluoride solution to the teeth, use of fluoride toothpaste, daily classroom supervision of tooth brushing, dietary control at school and home, and regular dental examination and treatment. A comprehensive programme indeed and one which is beyond our means.

Fluoridation is on its way and not less than one in every 20 children in this country is using water containing fluoride at an optimum level. There would be no difficulty in providing its beneficial effects were Parliament to make its adoption obligatory. The topical application of fluoride solutions on any effective scale would on the other hand require a large number of trained dental staff who are not available. The reduction to be expected in decay would be more than 25%, a result similar to that obtained from the regular use of fluoride toothpastes. Supervised class room tooth brushing and swilling with fluoride solutions is being done on a very small scale. The effectiveness of organised tooth brushing may be judged from the results of an experimental programme in an adult college when a 42% reduction in new cavities was obtained after two years of close control. Some attempts have been made to control diet at school level but have not been generally successful and to effect changes in diet at home in view of the present social, economic and commercial interests involved is not possible. The value of dental examinations in school followed by treatment lies in the contact made with the children by a dentist, the letter sent to parents after school inspections notifying them that treatment is required, and the collection of statistical evidence on the state of dental health of children. Only one half of the total child population and something less than one half of Sheffield's children are seen in school by a dentist each year. Through the combined efforts of general dental practitioners and school dental officers one half of the total number of children receive dental treatment each year. It is perhaps strange that in most schools the treatment offered is refused by some 50% of the parents concerned. It is then perhaps not so strange that after 20 years of free dental treatment for all those under 21, one in every six persons between 25-34 years of age, and one in three of 33-44 years of age are without any natural teeth. The demand for children's treatment is growing however, but should this growth exceed the availability of additional dentists "Who will treat our children?" as Ralph B. Weil asks in a recent paper in the New York Journal of Dentistry. It is reported that in the African State of Malawi only one full time dental officer is available for a school age population of over 1,000,000 and no doubt there will be demands made

on his time by other public and professional duties. It would appear in view of the very meagre services offered by some countries that our children are particularly fortunate. On the other hand the United States have a much higher dentist per population ratio than we, and yet there is some concern shown in the States over the need for more dentists to cope with the increasing demand for children's treatment.

At Parliamentary level there is still discussion on what new controls should be applied to the general dental service to stimulate more activity in children's dentistry. Area Health Authorities are still in the offing but, whatever changes are made here, it is certain that the increased personal charges for the treatment of adults to be imposed after 1st April, 1971 will mean more treatment available for children. As much of the routine conservative work can and is being very successfully carried out by dental auxiliaries, it will not be surprising to find more training facilities being provided for them and the adoption at some time in the future of regulations making dental auxiliaries available for employment by private practitioners. This should be an effective means of augmenting the limited professional services available.

STATISTICAL INFORMATION

'The miller sees not all the water that goes by his mill'
'Anatomy of Melancholy'.—Robert Burton

A. MEDICAL OFFICER'S INSPECTIONS

		Children	Attendances
1. Visits to Schools	2,282		
Periodic Health Inspection in School			
Total		13,236	
Entrants	7,524		
Leavers	5,712		
Special Examinations			
Total examined		1,611	
Defects found	1,439		
Required treatment	548		
Required observation	948		
Observations re-examined		6,454	
Numbers attending school clinics		9,086	11,732

2. General Condition

(Department of Education and Science classification)

Percentage unsatisfactory	Boys	0·36%
	Girls	0·23%

3. Cleanliness

(i) (*a*)	Total number of individual examinations of pupils in schools by school nurses or other authorised persons	148,417
(*b*)	Total number of individual pupils found to be infested ...	1,913
(*c*)	Number of individual pupils in respect of whom cleansing notices were issued (Section 54(2), Education Act, 1944) ...	3,310
(*d*)	Total number of individual pupils in respect of whom cleansing orders were issued (Section 54(3), Education Act, 1944)	—

(ii) PERIODIC HEALTH INSPECTIONS—1970

	HEAD				BODY		
	Clean Hair	Infected Hair			Clean	Lice	Total
		Nits	Lice	Total			
Boys ...	99·73%	0·25%	0·02%	0·27%	100%	—	—
Girls ...	99·64%	0·34%	0·02%	0·36%	99·97%	0·015	0·015

4. Defects found by Periodic and Special Medical Inpections during the Year

Defect or Disease	Periodic Inspections						Special Inspections	
	Entrants		Leavers		Total			
	Requiring Treatment	Requiring Observation	Requiring Treatment	Requiring Observation	Requiring Treatment	Requiring Observation	Requiring Treatment	Requiring Observation
Skin	82	179	128	139	210	318	3,516	68
Eyes—(*a*) Vision	126	608	203	267	329	875	893	154
(*b*) Squint	68	180	19	44	87	224	30	40
(*c*) Other	8	37	5	36	13	73	252	19
Ears—(*a*) Hearing	91	159	45	50	136	209	481	103
(*b*) Otitis Media	10	77	15	37	25	114	26	29
(*c*) Other	30	131	13	42	43	173	493	40
Nose and Throat	62	589	42	141	104	730	224	118
Speech	55	386	4	17	59	403	140	39
Lymphatic Glands	1	382	—	51	1	433	1	47
Heart	12	156	16	63	28	219	18	25
Lungs	8	218	19	63	27	281	23	51
Developmental—								
(*a*) Hernia...	10	33	3	9	13	42	1	1
(*b*) Other	8	262	33	97	41	359	15	61
Orthopaedic—								
(*a*) Posture	1	16	1	21	2	37	—	6
(*b*) Feet	16	299	12	132	28	431	15	43
(*c*) Other	20	181	27	56	47	237	169	38
Nervous System—								
(*a*) Epilepsy	4	38	4	23	8	61	8	20
(*b*) Other	—	11	3	19	3	30	7	28
Psychological—								
(*a*) Development ...	14	63	3	21	17	84	102	65
(*b*) Stability	3	555	11	59	14	614	244	103
Abdomen	1	16	2	10	3	26	31	22
Other	11	43	7	34	8	77	3,119	95

B. SCHOOL NURSING SERVICE

IN THE SCHOOLS—

Attendance with school medical officers at periodic health inspection.		
Examination of children under cleanliness scheme	Boys 73,504	
	Girls 74,913	
		148,417
Examination of children for 'following up'		2,060
Examination of children for investigation of outbreak of infectious diseases		994
Attendances for breathing exercises		1,861
Number of visions tested		20,313
		173,645
Number of children referred to clinics		2,661
Number of visits to schools		18,042

IN THE CLINICS

	Eye Treatment		Ear Treatment		Minor Dressings	
	Cases	Attendances	Cases	Attendances	Cases	Attendances
TOTALS ...	533	3,810	965	3,350	15,117	23,770

IN COMPREHENSIVE SCHOOL MEDICAL ROOMS

	Eye Treatment		Ear Treatment		Minor Dressings	
	Cases	Attendances	Cases	Attendances	Cases	Attendances
TOTALS ...	219	324	251	512	11,663	22,059

IN THE HOMES—

Visits for 'following up'	1,135
Visits for neglect, uncleanliness, etc.	258
Visits for various purposes	1,522
	2,915

C. (i) ATTENDANCES AT CLINICS

Clinics	School Medical Officers		School Nurses	
	Cases	Attendances	Cases	Attendances
Attercliffe	660	715	1,066	1,465
Pitsmoor	451	541	354	607
Hurlfield	242	242	2,102	2,935
Heeley	672	1,160	141	304
Central	1,853	2,201	595	1,417
Greenhill	441	628	437	778
Handsworth	468	630	350	626
Woodhouse	247	354	139	423
Shiregreen	682	872	961	1,129
Chaucer	868	1,007	666	1,967
Hackenthorpe	68	80	6	46
Manor	953	1,470	1,013	1,628
Wisewood	314	522	608	741
Myers Grove	783	855	2,247	2,635
Frecheville	179	232	42	106
Wybourn	205	223	678	1,058
	9,086	11,732	11,405	17,865

(ii) ATTENDANCES AT SCHOOL MEDICAL ROOMS:—

Schools	Cases	Attendances
Nursery	451	827
Special Schools ...	6,520	15,497
Others	9,626	18,421
Total	16,597	34,745

D. DENTAL INSPECTION AND TREATMENT

i. *Attendances & Treatment*

	Ages 5 to 9	Ages 10 to 14	Ages 15 and over	Total
First visit	3,038	3,424	756	7,218
Subsequent visits	3,026	5,650	1,447	10,123
Total visits	6,064	9,074	2,203	17,341
Additional courses of treatment commenced	282	357	74	713
Fillings in permanent teeth	2,512	8,627	2,630	13,769
Fillings in deciduous teeth	3,274	342	—	3,616
Permanent teeth filled	2,103	7,498	2,250	11,851
Deciduous teeth filled	2,989	306	—	3,295
Permanent teeth extracted	507	1,746	307	2,560
Deciduous teeth extracted	4,530	1,528	—	6,058
General anaesthetics	1,490	1,000	117	2,607
Emergencies	782	450	52	1,284
Number of pupils X-rayed				402
Prophylaxis				1,718
Teeth otherwise conserved				57
Number of teeth root filled				19
Inlays				3
Crowns				17
Courses of treatment completed				6,200

ii. *Orthodontics*

Cases remaining from previous year	101
New cases commenced during year	82
Cases completed during year	63
Cases discontinued during year	19
No. of removable appliances fitted	142
No. of fixed appliances fitted	16
Pupils referred to hospital consultant	16

iii. *Prosthetics*

	Ages 5 to 9	Ages 10 to 14	Ages 15 and over	Total
Pupils supplied with Full Upper or Full Lower (first time)	—	—	—	—
Pupils supplied with other dentures (first time)	4	19	5	28
Number of dentures supplied	5	28	7	40

iv. *Anaesthetics*

General anaesthetics administered by dental officers	963

v. *Inspections*

(*a*)	First inspection at school. Number of pupils	21,202
(*b*)	First inspection at clinic. Number of pupils	4,512
	Number of (*a*) + (*b*) found to require treatment ...	16,168
	Number of (*a*) + (*b*) offered treatment	12,669
(*c*)	Pupils re-inspected at school or clinic	2,757
	Number of (*c*) found to require treatment	1,292

vi. *Sessions*

Sessions devoted to treatment	3,096
Sessions devoted to inspection	140
Sessions devoted to dental health education	22

E. AUDIOLOGY CLINIC AND PRE-SCHOOL HEARING ASSESSMENT CLINIC

New Cases	186	
Cases from previous years still under review	25	
		211
Admitted to the Maud Maxfield School for the Deaf following a period of Auditory Training	6	
Referred to Otologist	28	
Hearing found to be satisfactory	97	
Hearing satisfactory but recommended for Special Therapy	21	
Currently having auditory training	11	
Cases still under review at end of year	48	
		211
Audiometer: pure tone testing		
New cases	1937	
Retests	725	
		2662
Sweep tests: ages 6-7 years		
Total		9295
Unsatisfactory and referred to school clinic or general practitoner		606

Peripatetic Staff

	Special	1st & Middle/J.&I.	Secondary	Total
Schools visited ...	10	28	15	53
Children visited ...	27	43	38	108
No. of visits to schools	308	441	353	1102
No. of visits to children ...	529	637	523	1689

F. SPEECH THERAPY CLINIC

Analysis of Work carried out during 1970

Cases open on the 1st January, 1970	332
Cases on waiting list 1st January, 1970	178
Cases referred during 1970	206
	716

Cases closed during 1970	162
Cases open on 31st December, 1970	385
Cases on waiting list 31st December, 1970	
(*a*) not yet seen	24
(*b*) seen for assessment	145
	716

Interviews

Treatment interviews with children	7,012
Supervision interviews with children	745
Diagnostic interviews with children	210
Interviews with parents	688
Interviews with other members of S.H.S.	323
Visits made by Speech Therapists to schools etc.	65

Children referred for further examination

Audiometer Test (Special referral)	1
To Educational Psychologist for mental assessment	6
To Child Guidance Centre for opinion and treatment	2
For E.N.T. examination	3
For neurological examination	1
To plastic surgeon	3
Children referred as in need of priority for Nursery school placement	6

Reasons for Closure during 1970

I. Treatment Cases

	A	B	C
*1. Good result	—	1	39
2. Maximum benefit	—	—	15
3. Left school or district prior to completion of treatment	4	—	19
4. Non-attendance	—	1	23
5. Parents or patients request	2	3	12
6. Receiving treatment elsewhere	1	1	14
7. Attendance not possible	—	—	2
8. Unsuitable for treatment	—	1	—

A—Stammer; B—Stammer plus speech defect; C—Speech defect.

*All cases in this category are given a period of supervision prior to closure.

II. Observation Cases

Treatment not indicated after supervision	16
Treatment not indicated at preliminary interview	1

III. Non-attendance at preliminary interview 6

IV. Removed from Waiting List 1

Number of cases	547
Number of attendances	7,967

G. CHILD GUIDANCE CENTRE

8. Child Guidance Centre

No. of cases open 1st January, 1970			839
No. of cases registered	Boys	427	
	Girls	177	
			604

Source of reference

Head Teachers	426	
Parent or Guardian	56	
School Medical Officer	82	
Speech Therapist	7	
Juvenile Court	16	
General Practitioner	9	
Hospital...	5	
Others	3	
		604

Reasons for Reference

(i) Nervous Disorders ... ... e.g. Fears, Shyness, depression, emotional instability, day dreaming	27	
(ii) Habit Disorders ... ... e.g. Speech, Sleep and Feeding disorders, restlessness, incontinence	15	
(iii) Behaviour disorders ... ... e.g. Temper, Aggression, Truancy, Delinquency and unmanageability	221	
(iv) Intellectual Difficulties ... ... e.g. Educational backwardness and learning difficulties	341	
		604

Age of Reference

Age	4	5	6	7	8	9	10	11	12	13	14	15	16	Total
No. of Children	13	23	62	99	119	79	41	45	50	32	28	12	1	604

Analysis of Work

Cases closed		499
Did not attend initially	44	
Consultation only	208	
Supervision only	162	
Treatment cases ... ... (9 failed to complete the treatment)	85	
Cases open 31st December, 1970		908
Under Investigation	49	
Awaiting treatment (investigation completed) ...	168	
Under treatment	45	
Under Supervision	646	
Cases on waiting list 31st December, 1970		123

Intelligence quotient range of all cases closed during 1970

	70 and under	71 to 80	81 to 90	91 to 100	101 to 110	111 to 120	121 to 130	Over 130	Not tested	Total
No. of Children ...	51	68	62	76	73	48	23	6	87	494

H. SPECIALIST CLINICS

1. *Ophthalmic*

	Cases	Attendances
Central Clinic		
Errors of refraction	1,625	1,733
Squints	189	199
Congenital Defects	153	164
Inflammatory conditions	10	11
Injuries	6	6
No defects found	148	153
Other Diseases and Defects	13	14
Totals	2,144	2,280
Hackenthorpe Clinic Totals		124
Frecheville Clinic Totals		110

2. *Orthoptic (Central Clinic)*

Cases outstanding from 1969	430
New cases: referred	216
registered	184
Cases discharged	119
Cases remaining open	495
Total attendances	1,095

Details of discharges—

Cured	22
Improved	16
Cosmetically satisfactory	11
No apparent defect	9
After investigation found to be unsuitable	7
Left district	8
Failed to attend	42
Treatment refused	4

3. *Ear, Nose and Throat*

New cases	269
Total seen	407
Total attendances	605

Reasons for attendances:

Tonsils and adenoids	16
Tonsils	41
Adenoids	70
Otitis media	3
Deafness	209
Other conditions	235
Consultation—no treatment advised at present	31
	605

4. *Orthopaedic*

Children seen	121
Referred to hospital	8
Total attendances	165

5. *Chiropody*

Children seen	1099
Treatments given	2170
Under care at end of year	19

J. HANDICAPPED PUPILS

During the calendar year 1970:— Number of handicapped pupils who were:—	(1) Blind (2) Partially sighted		(3) Deaf (4) Partially Hearing		(5) Physically Handicapped (6) Delicate		(7) Maladjusted (8) Educationally Sub-normal		(9) Epileptic (10) Speech Defects		TOTAL (1)—(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
A. Newly assessed as needing special educational treatment at Special Schools or in Boarding Homes (other than Hospital Special Schools)	—	3	11	2	17	38	35	110	3	1	219
B. (i) Number of these newly placed	—	3	11	2	17	32	26	77	2	—	170
(ii) Placed during the year but assessed prior to 1/1/70 ...	1	—	—	—	3	7	1	21	—	—	33

On 21st January, 1971:— Number of handicapped pupils who were:—	(1) Blind (2) Partially sighted		(3) Deaf (4) Partially Hearing		(5) Physically Handicapped (6) Delicate		(7) Maladjusted (8) Educationally Sub-normal		(9) Epileptic (10) Speech Defects		TOTAL (1)—(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
C. Requiring places in Special Schools											
(i) TOTAL:—											
(*a*) Day	—	—	—	—	—	5	3	38	—	1	47
(*b*) Boarding	—	—	—	—	—	5	6	—	1	—	12
Number of pupils included in these totals:—											
(ii) Who had not reached the age of 5 and were awaiting:—											
(*a*) Day places	—	—	—	—	—	—	—	—	—	—	—
(*b*) Boarding places	—	—	—	—	—	—	—	—	—	—	—
(iii) Who had reached the age of 5 but whose parents had not consented to their admission to a Special School and awaiting:—											
(*a*) Day places	—	—	—	—	—	1	—	1	—	—	2
(*b*) Boarding places	—	—	—	—	—	2	—	—	—	—	2
(iv) Who had been awaiting admission for more than one year	—	—	—	—	—	—	—	—	—	—	—

HANDICAPPED PUPILS (*continued*)

On 21st January, 1971:— Number of handicapped pupils who were:—	(1) Blind (2) Partially sighted		(3) Deaf (4) Partially Hearing		(5) Physically Handicapped (6) Delicate		(7) Maladjusted (8) Educationally Sub-normal		(9) Epileptic (10) Speech Defects		TOTAL (1)—(10)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
D. (i) On the registers of:—											
(1) Maintained Special Schools as:—											
(*a*) Day pupils	—	—	59	1	128	146	79	656	2	2	1,073
(*b*) Boarding pupils ...	8	—	3	2	8	34	7	5	2	—	69
(2) Non-Maintained Special Schools as:—											
(*a*) Day pupils	—	—	—	—	—	—	—	—	—	—	—
(*b*) Boarding pupils ...	8	—	4	—	2	2	5	9	1	1	32
(ii) On the registers of Independent Schools under arrangements made by the Authority... ...	—	—	—	—	—	—	—	—	—	—	—
(iii) Boarded in Homes and not already included under (i) or (ii) above	—	—	—	—	—	7	—	1	—	—	8
(iv) Special Units	—	20	—	21	—	—	—	—	—	—	41
E. Being educated under arrangements made under Section 56 of the Education Act, 1944:—											
(i) In other groups	—	—	—	—	—	—	36	3	—	1	40
(ii) At home	—	—	—	—	9	—	7	—	—	—	16
Total awaiting places or receiving special education	16	20	66	24	147	199	143	712	6	5	1,338

G. During the *calendar year* ended 31st December, 1970:—

(*i*) Number of children subject of new decisions recorded under Section 57 of the Education Act, 1944 23

(*ii*) Number of reviews carried out under Section 57A of the Education Act, 1944 2

(*iii*) Number of decisions cancelled under Section 57A(2) of the Education Act, 1944 1

HANDICAPPED PUPILS (*continued*)

Sheffield Children in Out-of-City Residential Special Schools and Homes, December, 1970

Condition	Boys	Girls	Total
Blind and Partially-sighted	5	3	8
Deaf and partially-hearing	3	4	7
Delicate	5	5	10
Educationally sub-normal	11	2	13
Epileptic	1	1	2
Maladjusted	6	1	7
Physically handicapped	—	2	2
Speech Defect	1	—	1
Total ...			50

K. COSTS, Year ended 31st March, 1970

Section	Gross Expenditure	Income	Net Expenditure	Cost in terms of a Penny Rate	
				Gross Expenditure	Net Expenditure
	£	£	£	p	p
Medical Inspection and Treatment	210,797	3,485	207,312	2·16	2·13
Special Schools	752,383	246,216	506,167	7·72	5·19
Totals	963,180	249,701	713,479	9.88	7.32

City of Sheffield, General Information

Population (as estimated mid-1970)	528,230
Area	45,363 acres
Density of population	11.57 persons per acre
Rateable Value at 31st March, 1970	£24,391,933
Rate levied for Education, year ended 31st March, 1970	169·69d.
Penny Rate Product, year ended 31st March, 1970	£97,480
Primary and Secondary Schools (including Nursery Schools)—	
Number of schools	234
Number on rolls	86,987
Special Schools—	
Number of schools	20
Number on rolls	1,616

STAFF OF THE SCHOOL HEALTH SERVICE

Medical Officer of Health and Principal School Medical Officer
CLIFFORD H. SHAW, M.D., D.P.H., D.P.A.

Deputy Medical Officer of Health and Deputy Principal School Medical Officer
ROGER CHAPMAN, M.B., Ch.B., D.P.H.

Senior School Medical Officer
JOHN C. MacINNES, M.B., Ch.B., D.P.H.

Senior Medical Officer (Audiology)

EITHNE M. SWALLOW, B.A., M.B., Ch.B., B.A.O., (to 30/9/70)

ANNA M. MacCARTHY, M.B., Ch.B. (from 1/10/70)

Full-time School Medical Officers:—

JAMES GREER, L.R.C.P.(I)., L.R.C.S.(I)., L.M.

MARY B. VINCENT, B.A., M.B., B.Ch., B.A.O., C.P.H.

School Medical Officer also serving the Public Health Service:

KATHERINE S. P. HILL, B.A., M.B., B.Ch., B.A.O.

Joint Appointments to School Health and Public Health Services:

KENNETH W. ALLEN, M.A., M.B., Ch.B., D.Obst. R.C.O.G.
APARNA BANNERJEE, M.B., B.S., D.G.O.
HARRIET G. DORNAN, M.B., Ch.B., B.A.O. D.Obst., R.C.O.G.
WILLIAM J. GREEN, M.B., Ch.B., D.P.H.
JOHN J. McKESSACK, M.R.C.S., L.R.C.P.
ROSEMARY J. E. SAWORD, M.B., Ch.B., M.R.C.O.G.
HILARY D. SHARPE, M.B., Ch.B., D.Obst., D.P.H.
MARY STANNARD, M.B., B.S., M.R.I.C.P. (from 1-11-70)

Part-time School Medical Officers:

*DOREEN C. B. COLVER, M.B., Ch.B., D.C.H.
*MARY P. GRECH, M.B., B.S.
*CHARLES O. GREER, B.A., M.B., B.Ch., B.A.O.
*JOHN A. HOWE, M.B., Ch.B., M.R.C.S., L.R.C.P.
*MARY E. JEFFERSON, M.B., B.S., M.R.C.P.
*KATHLEEN M. JONES, M.A., M.B., B.Ch., D.C.H.
*SHEILA M. TILLOT, M.R.C.S., L.R.C.P.
*FRANCIS A. WRENCH, M.B., Ch.B.

Specialist Officers:

Ophthalmic Department ... ... †*MALCOLM F. FERGUSON, M.B., B.S., D.O.M.S.
†*R. N. SENN, M.B., B.S., D.O.
Ear, Nose and Throat Department ... ... †*JOHN T. BUFFIN, B.M., B.Ch., F.R.C.S., D.L.O.
Orthopaedic Department ... ... †*ALFORD DORNAN, M.B., Ch.B., F.R.C.S.
Rheumatism and Heart Department ... ... †*JOHN LORBER, M.D., F.R.C.P., D.A.
(Discontinued from 1/9/70)

Orthoptists:

†*Miss JENNIFER A. SMITH, D.B.O.

†*Mrs. N. WAREING, D.B.O.

Chief School Nursing Sister

Miss AUDREY E. SALVIN, S.R.N., S.C.M., H.V Cert.

School Nursing Sisters

Mrs. MARY ANDERSON, S.R.N., R.S.C.N.
Miss PHYLLIS A. ARTHUR, S.R.N.
Mrs. ELIZABETH BATES, S.R.N., R.F.N., C.M.B. (Part 1)
Mrs. MARGARET BENNETT, S.R.N.
Mrs. GRACE BROWN, S.R.N., S.C.M.
Mrs. JOYCE C. COGGINS, S.R.N.
Miss EDITH DONCASTER, S.R.N.
Miss BETTY DRIVER, S.R.N., S.C.M.
Mrs. JEAN DRURY, S.R.N., S.C.M.
Mrs. BESSIE J. GODDARD, S.R.N.
Mrs. MARY HALL, S.R.N., S.C.M.
Mrs. EVE HAMPTON, S.R.N. (to 18/9/70)
Mrs. JOYCE HARDY, S.R.N., R.S.C.N. (from 1/6/70)
Mrs. ANNIE R. HARRISON, S.R.N.
Mrs. IVY HIBBERT, S.R.N., S.C.M.
Miss MARGARET HILTON, S.R.N., R.F.N. C.M.B. (Part 1)
Mrs. VERA C. M. JAMES, S.R.N.
Mrs. CONSTANCE JONES, S.R.N., C.M.B. (part 1)
Mrs. MARGARET KENNEDY, S.R.N.
Mrs. JACQUELINE KIRKBY, S.R.N.
Mrs. JOYCE LEACH, S.R.N.
Mrs. FLORENCE LEWIS, S.R.N.
Mrs. LILIAN LIVERSIDGE, S.R.N., T.A. & Orth. Certs.
Mrs. LOIS McCALLUM, S.R.N., S.C.M.R.F.N. H.V. Cert.
Mrs. J. A. MARSH, S.R.N.
Mrs. ROBERTA A. MAXFIELD, S.R.N.
Mrs. VERONICA MORAN, S.R.N.
Mrs. EVELYN NOBLE, S.R.N.
Mrs. MARJORIE PRINGLE, S.R.N. (to 31/3/70)
Mrs. GRACE RICHMOND, S.R.N.
Mrs. SYLVIA ROBINSON, S.R.N.
Mrs. RENE SMITH, S.R.N.
Miss GRACE STANIFORTH, S.R.N., S.C.M.
Mrs. BETTY WILKINSON, S.R.N. (from 1/6/70)
Miss SUSAN WILLIAMS, S.R.N. (to 30/10/70)
Mrs. JANE WOOD, S.R.N.
Mrs. JOYCE WOOD, S.R.N., C.M.B. (Part 1)

Nursing Assistants:

Miss KATHLEEN BELL
Mrs. HAZEL COLLEY
Mrs. MARY CRAPPER, S.E.N.
Mrs. DOROTHY DARWIN
Mrs. CONSTANCE H. ELLIOTT
Mrs. MINNIE E. ENGLAND, S.E.N.
Miss ELIZABETH GILL (to 30-6-70)
Mrs. ZONA HEAGNEY
Mrs. VERA LAWTON
Mrs. GWYNNETH D. MARK
Mrs. BETTY PURVIS, S.E.N.
Mrs. ELIZABETH M. ROSE, S.E.N. (from 1/1/70)
Mrs. JOAN STEER
Mrs. MARY E. TOWNSEND, S.E.N
Mrs. JOAN M. TURNER
Mrs. LILY WILLIAMS
Mrs. J. PURNELL (P.T.)

Pharmaceutical Assistant:

GEORGE WARRILOW

Principal School Dental Officer:

EDGAR COPESTAKE, L.D.S.

Senior School Dental Officers:

NORMAN ANDREWS, B.D.S.

DAVID COOK, B.Ch.D.,

School Dental Officers:

Mrs. JEAN A. FINN, B.D.S.
*Mrs. ANN P. HENRY, B.D.S. (from 20/4/70 to 13/7/70)
Mrs. PETA J. B. HILL, B.D.S. (from 7/9/70)

THOMAS D. JONES, B.D.S. (to 31/8/70)
ROBERT T. KILVINGTON, B.D.S.
Mrs. MARY VERNON, B.D.S. (to 30/9/70)
ROBIN SCALLY, L.D.S. (from 13/4/70)

Dental Anaesthetist:

*COLETTE TAYLOR, M.B., B.S., D.A., F.F.A.R.C.S.

Dental Auxiliaries:

Mrs. JACQUELINE HARDY

Mrs. PATRICIA MARLOW (to 30/9/70)

Dental Surgery Assistants:

Miss CLARE L. MARSDEN (Senior)
Mrs. MARGARET BENTLEY (from 13/4/70)
Mrs. ESME BROOKE
Mrs. LILIAN BUTLER
Mrs. MOLLY CUNDY (to 30/4/70)
Miss PATRICIA GINGELL

Miss ELIZABETH A. HAMMOND (from 1/5/70)
Miss SUSAN E. PEARSON
Miss PATRICIA A. REID (from 13/4/70)
Mrs. AUDREY ROSS
Mrs. JOYCE WHITEHEAD
Mrs. CAROLE WORRALL

Dental Technician:

CLIFFORD J. ATKIN (Senior)

Child Guidance Centre

Medical Director—THE SENIOR SCHOOL MEDICAL OFFICER

F. DAVID LOXLEY, B.A., A.B.Ps.S., (from 1/10/70) (Senior Educational Psychologist)
Mrs. JUDITH A. BENNISON, B.A. (Educational Psychologist)
Mrs. MAUREEN J. BIRCH, B.A. (Educational Psychologist)
Miss VALERIE A. GREAVES, B.A. (Educational Psychologist)
IAN C. MURPHY, Ph.D., (to 31/3/70) (Educational Psychologist/Psychotherapist)
*Mrs. PATRICIA PEARSON, B.A. (to 31/11/70) (Educational Psychologist)
*Mrs. KATHLEEN M. PRESTON, B.A. (from 5/1/70) (Educational Psychologist)
Mrs. JACQUELINE M. RUDDOCK, B.A. (from 1/9/70) (Educational Psychologist)

†*R. A. BUGLER, M.B., B.S., D.P.M. (Psychiatrist)
†*F. G. THORPE, M.A., Ch.B., D.P.M. (Psychiatrist)
†*REGINALD WARNECKE, M.R.C.S., L.R.C.P., D.P.M. (Psychiatrist)
†*A. C. WOODMANSEY, M.D., M.R.C.P., D.P.M., D.C.H. (Psychiatrist)
GEORGE R. C. GORE, M.A. (to 8/10/70) (Psychiatric Social Worker)
*Mrs. CHAJE R. HOLMES (Psychiatric Social Worker)
*Mrs. CECILIA M. RILEY, B.A. (Social Worker)

Speech Therapy Clinic:

Miss ANNE B. CHAPMAN, L.C.S.T. (Senior Speech Therapist)
Miss JENNIFER ADKINS, L.C.S.T.
*Mrs. ANNE D. M. GRAY, L.C.S.T.
Miss CHRISTINE W. HOLLAND, L.C.S.T.

Mrs. BRENDA JEYNES, L.C.S.T. (from 1/9/70)
Miss JANE SCOTT, L.C.S.T. (to 30/4/70)
Miss JEAN THACKERAY, L.C.S.T. (from 1/9/70)

Chiropodist:

*LEONARD ALDAM, M.Ch.S., S.R.Ch.

Bents Green School:

Miss EILEEN MAGEE, S.E.N. (Assistant Nurse)

Chantrey School

Mrs. OLGA M. BANNISTER (Physiotherapist)
Mrs. THEODORA W. N. COLQUHOUN (Senior Physiotherapist)
Mrs. HEATHER V. HAYWOOD (from 13/4/70) (Physiotherapist)
Mrs. MARGARET HOLMES (Physiotherapist Helper)

Mrs. MARIAN FORTESCUE, S.R.N. (Resident Nurse)
Mrs. BESSIE FURNESS, S.E.N. (Assistant Nurse)
Miss NORA BELL, S.E.N. (Assistant Nurse)
Mrs. P. M. ROBINS (to 25/3/70) (Physiotherapist)

Mossbrook School:

Mrs. THEODORA M. DAVIS
(Senior Physiotherapist)
Miss IRENE M. FITZSIMONS
(Physiotherapist)
Miss ELAINE WHYLES, S.R.N. (to 31/7/70)
Mrs. KATHLEEN L. WINDLE, S.R.N.
(Senior Resident Nurse)
Mrs. NELLIE KENNEDY, S.E.N.
(Assistant Nurse)
Mrs. MARY E. MERRILL, S.E.N.
(Assistant Nurse)
Mrs. GLORIA M. DAY, S.R.N. (from 19/10/70)
(Resident Nurse)

SCHOOL HEALTH SERVICE, Central Clinic, 7, Leopold Street, S1 2GY

(NOTE: * Denotes part-time officer; † Denotes appointment by arrangements with the Regional Hospital Board).

SPECIAL SCHOOLS

	Accommodation for
Blind	
Tapton Mount School	60 pupils (res)
Partially Sighted	
Brook School (Special Unit)	15 pupils (day)
Stradbroke County School (Special Unit)	15 pupils (day)
Deaf (Grade III) and Partially Hearing (Grade IIB)	
Maud Maxfield School	36 pupils (res) 64 pupils (day)
Partially Hearing (Grade IIA)	
Greystones First School (Special Unit)	10 pupils (day)
Greystones Middle School (Special Unit)	20 pupils (day)
King Ecgbert Comprehensive School (Special Unit) ...	20 pupils (day)
High Storrs Comprehensive School (Special Unit) ...	10 pupils (day)
Delicate	
Bents Green School	40 pupils (res) 170 pupils (day)
Whiteley Wood School	144 pupils (day)
Physically Handicapped	
Chantrey School	40 pupils (res) 20 pupils (day)
Mossbrook School	50 pupils (res) 10 pupils (day)
Oakes Park School	120 pupils (day)
Educationally Subnormal	
East Hill Schools:	
Junior and Infant	100 pupils (day)
Senior Boys	120 pupils (day)
Handsworth School:	
Junior and Infant	80 pupils (day)
Highfield School:	
Senior Girls	120 pupils (day)
Springvale House:	
Junior and Infant	80 pupils (day)
Wadsley Bridge Schools:	
Junior and Infant	100 pupils (day)
Senior Boys	120 pupils (day)
Maladjusted	
Broad Elms	50 pupils (day)
Learning Difficulties Centre	16 pupils (day)
Schools run in conjunction with other bodies	
Shirle Hill School	20 pupils
Todwick Grange	30 pupils
School Leavers' Work Preparation Course	15 pupils (every 4 months)

CLINICS

Clinic	No. of Schools	Times of Attendance
Specialist and Administrative Centre, Central Clinic, 7, Leopold Street	All	Full-time
Audiology Clinic, Orchard Lane	All	Full-time
CHILD GUIDANCE CENTRES:		
9, Newbould Lane	All	Full-time
Handsworth Clinic, Hall Road	22	Thurs. mornings
Catchbar Lane	25	Fridays all day
Hackenthorpe	14	Mon. afternoons
SPEECH THERAPY CLINICS:		
Catchbar Lane	All	Full-time
Attercliffe Clinic, Vicarage Road	24	Thurs. afternoons
Greenhill Clinic, Greenhill County School	11	Wed. mornings
Manor Clinic, Prince Edward County School ...	57	Tues., Thurs. and Fri. mornings
Manor Welfare Centre, Ridgeway Road ...		Tues. afternoons
9, Newbould Lane	44	Fri. afternoons
DISTRICT MEDICAL CLINICS:		
Attercliffe Clinic, Vicarage Road	16	Wed. mornings
Central Clinic, 7, Leopold Street—District E	12	Wed. afternoons and Sat. mornings
District F	38	Mon. and Thurs. afternoons and Sat. mornings
Chaucer Clinic, Chaucer Comprehensive School ...	21	Mon. Wed. mornings
Frecheville Clinic, Fox Lane	10	Wed. mornings
Greenhill Clinic, Greenhill County School	16	Mon afternoons.
Hackenthorpe Clinic, Main Street	10	Tues. afternoons
Handsworth Clinic, Hall Road	10	Wed. mornings
Heeley Clinic, Lowfield County School	25	Tues. and Fri. afternoons
Manor Clinic, Prince Edward County School	31	Mon. and Thurs. afternoons
Myers Grove Clinic, Myers Grove School	6	Tues. mornings
Pitsmoor Clinic, Ellesmere Road County School ...	12	Thurs. afternoons
Shiregreen Clinic, Shiregreen County School	14	Wed. afternoons
Wisewood Clinic, Wisewood County School	6	Mon. afternoons
Woodhouse Clinic, Chapel Street	7	Fri. afternoons
Wybourn Clinic, Wybourn County School	4	Tues. afternoons

Clinic	No. of Schools	Times of Attendance
DENTAL CLINICS:		
Central Clinic, 7, Leopold Street	77	Varies
Heeley Clinic, Lowfield County School	28	,,
Gleadless Welfare Centre, White Lane	14	,,
Hackenthorpe Welfare Centre, Main Street	9	,,
Rowlinson Clinic, Rowlinson Technical School ...	13	,,
Attercliffe Clinic, Vicarage Road	16	,,
Owler Lane Clinic, Owler Lane County School ...	14	,
Hatfield Clinic, Hatfield Comprehensive School ...	15	,,
Manor Clinic, Prince Edward School	39	,,
Mobile Dental Clinic	9	,,
Wheata Place Clinic	16	,,

City of Sheffield Printing Department