A THESIS ENTITLED

# THE SCHOOL HEALTH SERVICE

*by*

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# THE SCHOOL HEALTH SERVICE.

## CHAPTER I.

## GENERAL INTRODUCTION.

The School Health Service is essentially a twentieth-century conception and just fifty years have elapsed since the first tentative steps were taken towards its inception in Glasgow. Despite the many changes in administration which have taken place since its inception, it has survived to achieve recognition as one of the most important avenues for the promotion of national health. The advent of the National Health Service in 1948 only served to emphasize its importance as an integral part of the new machinery and a circular letter issued by the Department of Health for Scotland (D.H.S. Circular 113/1948) restated the responsibilities of an education authority in respect of the health of school children in its area. The contents of the circular may be paraphrased thus:-

(1) The duty of an education authority under the Education (Scotland) Act, 1946 to provide for medical inspection and supervision of pupils is unaffected by the National Health Service. Similarly, the duties bearing on the ascertainment of mentally and physically handicapped children remain with the authority.

(2) With regard to treatment in general, the obligation of the authority under the 1946 Act to make arrangements for securing comprehensive free treatment could be discharged to some extent by making suitable

arrangements with the National Health Service. Some of the treatment facilities, however, afforded pupils by an authority would have to be retained for some years.

(3) Hospital and specialist treatment is the actual responsibility of the Regional Hospital Board and the obligations of the education authority will normally be discharged when it has arranged with the Board to ensure access to appropriate facilities. Specialists may undertake work for the authority by arrangement between the Board and the authority, and will if necessary visit clinics of the authority for this purpose.

(4) Ophthalmic treatment, including the supply of spectacles is also the responsibility of the Hospital Board, but the education authority is required to consult the Board as to the extent of the facilities provided by the latter and to make any necessary additional arrangements for detailed sight-testing and the supply of spectacles.

(5) Dental inspection is a part of medical inspection generally and will remain a permanent feature of the school health service. Dental treatment, except for specialist work provided by the hospital organisation, is to be maintained and indeed developed by education authorities for some time to come. It is emphasized that school children must be able to obtain such treatment as they require without delay. Local

authorities are also held responsible for providing dental treatment for expectant mothers and for pre-school children.

(6) Minor ailment clinics are to be maintained by the education authority and where necessary extended on existing lines, as no change is anticipated in the system for many years.

These were sensible, and necessary, definitions of the place of the school health service in the new order; but it is important to remember that in its origin and early development, the school medical service was independent of the public health administration and its statutory duties were laid down in successive educational enactments. For all practical purposes therefore, these medical services have formed and are part of the educational system - their costs are a direct charge on Education accounts. As a corollary, the primary aim of the service has been to ensure that school children are in fit condition physically and mentally to benefit by instruction in the schools - a prerequisite for the making of useful citizens. To be fully effective, the school health service must be thoroughly integrated with other activities of the educational machinery, and the fact that in Glasgow the two have always worked together smoothly is a tribute to the Education officials and the doctors who have collaborated to that end during the past fifty years.

The scope of the School Health Service is preventive and curative. Moreover, it possesses a continuous medical record covering more than forty-five years by which it is possible to

compare the physical condition and the incidence of morbidity in school children at various periods - a record which is unavailable for any other group of the population.

The Service makes provision for the medical supervision of each child throughout his school life by periodic and other examinations, with the offer of treatment for any condition which prevents him from making the best use of his schooling. Treatment facilities are comprehensive and are obtainable free of charge through the School Health Service which will provide them either at its own treatment centres or elsewhere in co-operation with other organisations.

The object of this thesis is to outline the growth of the School Health Service in Glasgow from its earliest days, to compare conditions and findings at various stages in its evolution, and to make some comment on the mass of information about the health of school children collected over the years.

## CHAPTER II.

## THE ORIGIN OF THE SCHOOL HEALTH SERVICE.

The origin of the Service can be traced to the general concern, at the beginning of the present century, about the unsatisfactory condition of the nation's health as indicated by the high death rate of infants under one year of age, the falling birth rate, and the poor physique of Army recruits during the South African War. As a result of this anxiety, the Royal Commission on Physical Training (Scotland) (1903) and the Inter-Departmental Committee on Physical Deterioration (1904) were appointed to investigate conditions and make recommendations. The former, assigned the duty of investigating physical training in schools recommended inter alia the provision of systematic medical inspection in schools and pointed out that only at school age could a complete assessment of the population be obtained, its physical condition revealed, and measures of a remedial or ameliorative nature applied with reasonable hope of success. The Committee on Physical Deterioration expressed similar views, declaring that the period of school life afforded the only opportunity for taking stock of the physique of the whole nation and securing conditions most favourable to healthy development.

As early as 1904, following publication of the Report on Physical Training, Dr. A. K. Chalmers, then Medical Officer of Health for Glasgow, instituted an enquiry into the health and housing conditions of 750 children attending schools in the City. The Congress of the Royal Sanitary Institute which discussed his report later in that year recommended that there should be

instituted a scheme of regular and systematic inspection of school children and that the matter should be brought before the educational authorities of the country. In the following year (1905) the School Board of Glasgow recorded the physical measurements of 72,857 children attending 73 Primary and Higher Grade schools, at the same time ascertaining their housing conditions. Dr. W. Leslie Mackenzie of the Local Government Board for Scotland and Captain A. Foster, Inspector of Physical Training, in their Report presented to Parliament in 1907 (Col. 3637) described the investigation as the most extensive ever undertaken in Britain of the heights and weights of children attending Primary and Higher Grade Schools.

In 1907, Govan Parish School Board anticipated legislation by initiating the systematic medical inspection of children attending schools in their area, and it would not be inapposite to set down here some particulars of this pioneer Govan scheme. The Board appointed in June, 1907 ten part-time medical officers for schools at a salary of £50 per annum. Their duties were wide:-

(1) To advise the Board as to ventilation, heating, lighting and cleanliness of schools, and the condition of lavatories, etc., reporting to Headmaster and Master of Works any insanitary conditions discovered.

(2) To inquire into any outbreak of infectious disease among pupils, taking necessary action and reporting the circumstances to the Board and to the Medical Officer of Health and co-operating with the latter in preventing infection.

(3) To advise the Board regarding periodic disinfection and and cleaning of schools for the prevention of disease.

(4) To examine the mental and physical condition of children seeking admission to special schools or classes and to grant necessary certificates.

(5) To exercise supervision over special schools and classes, reporting to the Board twice a year on the mental and physical progress of children attending and indicating measures to preserve or promote their health.

(6) To examine medically as required by the Board, pupils attending schools and to record on approved schedules examination of each child.

(7) To examine all children in infant departments and in Standards I and II between September, 1907 and June, 1908; subsequently to examine all scholars on admission and twice thereafter during school life; schools to be visited at least once a fortnight.

(8) To examine as soon as possible any child specially reported by the Headmaster as suffering from any ailment.

(9) To organise and superintend such systematic measurements and observations as Board institute.

(10) To inspect from time to time physical exercises given in schools and report to the Board any practices injurious to individual pupils.

(11) To examine candidates appointed to positions under the Board, also students, and report in cases of employees

absent through illness.

(12) To examine and certify fitness of teachers or pupils to undergo special courses of physical training.

(13) To instruct teachers in methods of recognising common ailments of school children, in first aid treatment, in general hygiene, and in the physical principles that underlie physical training.

(14) To keep records and books prescribed or approved by the Board; to submit annual report and such special reports as Board might require.

(15) To perform any other medical duties that may from time to time be required by the Board, it being understood that medical or surgical treatment would form no part of the medical officer's duties.

This was indeed an ambitious scheme and was of great experimental value. A Report on the first year's working, summarised the findings thus:

Children were examined individually in three groups of schools:-

Group I - 6 schools attended by children who "belong in the main to families of professional, commercial and other 'well-to-do' classes, where hygienic environment is good and parental neglect zero".

Group II - 6 schools where children "belong in the main to the upper artisan, retail shop-keeping, and lower commercial classes".

Group III - 17 schools in which the children were "largely working class and very poorest classes".

A total of 12,643 schedules was completed. The general averages of heights and weights were below the standard suggested in Dr. Leslie Mackenzie's "Health of the School Child". Testing of vision was done by teachers, but returns were variable showing lack of uniformity in the method of examination. Defective teeth were common in all groups; skin diseases and rickets were fairly numerous in all but Group I Schools; diseases of nose, throat, mouth and glands were found frequently in all schools but the majority occurred in lower class schools; defective hearing could not be assessed accurately as the deafness in many cases was due to dirt or wax blocking the external auditory passages; heart and lung defects were discovered in some instances for the first time on the official medical inspection.

Although medical inspection of physically handicapped children was already permissive by the terms of the Education of Defective Children (Scotland) Act, 1906, the Education (Scotland) Act, 1908 was the statute which actually empowered the formation of a school health service. The relevant provisions of the 1908 Act were briefly as follows:-

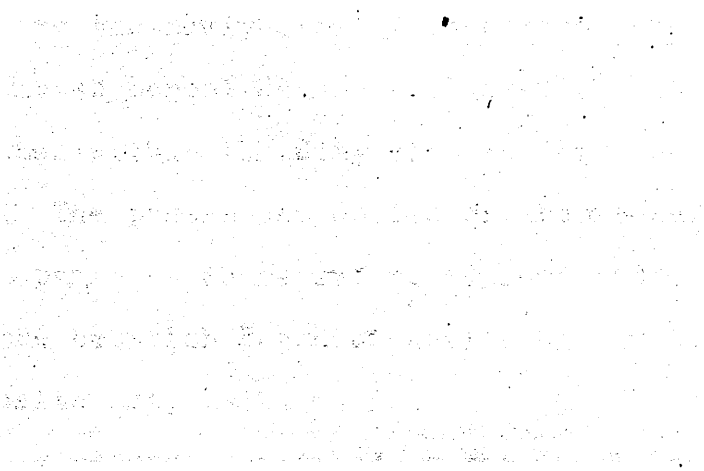
Section 4 made it possible for a School Board, and compulsory if required by the Scotch Education Department, to provide for medical examination and supervision of pupils attending schools within their district and to employ medical officers or nurses or arrange with voluntary agencies for the supply of nurses, and to provide appliances or other requisites.

Section 6 gave authority to take action against parents for neglect where a child was in a filthy or verminous state, or was unable by reason of lack of food or clothing to take full advantage of the education provided. If parents were unable to look after a child properly by reason of ill-health or poverty, the School Board was authorised to make provision for the child while he was under obligation to attend school; and the School Board was empowered to make temporary provision for any child and recover cost from parent or guardian unless poverty or ill-health of parent was substantiated.

The underlying principle was that the School Board must be satisfied that every pupil was fit to profit by the education offered. It was realised that individual examination of every child and constant medical supervision was necessary, but the new powers under this Act were intended to supplement and not to supersede the powers of the Local Public Health Authority and their Medical Officer of Health under the Public Health Acts to report on the sanitary conditions of schools and to supervise and inspect school children in reference to infectious diseases. In the first instance, the provision of medical treatment was not contemplated, the inspecting medical officer being simply authorised to advise the parent or guardian that treatment was necessary, although food and clothing could be supplied in necessitous cases.

It soon became evident that without authority to provide treatment the local authority was faced with the problem of how to deal with children discovered at routine medical inspection

to be suffering from ailments, whose parents were unable to provide the necessary treatment. The Court of Session decided that a School Board had no power under the Act to give treatment at the expense of the rates. Subsequently, however, in 1912, the Scottish Education Department intimated that grants would be given from Government funds for the treatment of necessitous children, and the Education (Scotland) Act, 1913 legalised the provision of schemes for medical (including surgical and dental) treatment of school children. With this approval of the principle of treatment the school health service evolved gradually and, on the whole, uninterruptedly.



## CHAPTER III.

## DEVELOPMENT OF THE SERVICE IN GLASGOW.

In tracing the progress of the School Health Service in Glasgow, it will be convenient to commence with the year ending June, 1910 when medical inspection of school children was initiated in accordance with the provisions of the Education (Scotland) Act, 1908, and to consider progress in successive decades.

### PERIOD 1909/10 - 1918/19.

#### Early Organisation and Administration.

In the early years education was administered by ad hoc authorities - School Boards in Glasgow and other large burghs - under the central control of the "Scotch" Education Department; but in 1919, following the passing into law of the Education (Scotland) Act, 1918, the relevant powers and duties were transferred to the newly-created Education Authorities, Glasgow and Govan Parish School Boards amalgamating with the portions of other parishes within the City area to form the Education Authority of Glasgow. The powers and duties of the re-named Scottish Education Department in regard to medical inspection and treatment passed to the Scottish Board of Health by the terms of the Scottish Board of Health Act, 1919.

From old records published by the local School Boards at the time, much useful information is available about the condition of children attending school under the jurisdiction of the Govan Parish and the Glasgow School Boards. As previously mentioned, Govan Parish instituted a system of routine medical inspection

in schools in 1907, but two years later it was found necessary to adopt a more extensive organisation. The Glasgow School Board introduced a scheme of systematic inspection in 1909, in consequence of the enactment of 1908, although the Board had already been operating a modified scheme involving the testing of vision and hearing of children and the medical examination of children in connection with the work of the Special Schools. In November, 1909 each of these Boards appointed a Principal Medical Officer responsible to his Board for the organisation and supervision of the general scheme of medical inspection. The Glasgow Board also appointed a permanent half-time medical officer to assist, but most of the examinations were undertaken by twenty local medical practitioners, appointed temporarily from year to year, who devoted three school Sessions of two and a half hours' duration each per week to medical inspection; seven school nurses were also appointed, four permanently and three temporarily. In the same year, Govan Parish engaged ten part-time medical officers, eight of whom were expected to devote not less than one hour per week to the work of medical inspection in each of the three schools under their charge, the other two doctors giving half that time weekly. In addition to the two nurses appointed the previous year to special schools in the Govan Parish area, three nurses were employed to assist in the medical inspection of school children.

First Report on Medical Inspection.

The first Report by each Principal Medical Officer, although dealing with work which was in an experimental stage and the statistical records of which had been compiled under conditions

where no uniform standard had as yet been adopted, nevertheless revealed some interesting facts. In both areas defective teeth were found in no less than 80 to 90 per cent. of the children examined, naso-pharyngeal conditions were reported in just under 50 per cent., and about 30 per cent. of the children examined were verminous. Many of the children suffered from more than one of these and other defects. Strangely enough, in view of the unenviable reputation of West of Scotland children in this respect, rickets was recorded in the Glasgow Board's area in less than 10 per cent. of those inspected and Govan Parish reported little more than 5 per cent. The numbers of schools visited and the children examined by medical officers during the year were - in Govan, 37 schools and 9,411 children; in Glasgow area, 75 schools and 22,906 children.

Inadequacy of Original Medical Inspection Scheme.

As has been seen, a serious weakness in the scheme of Medical Inspection was the absence of powers authorising a School Board to provide medical treatment for the children found to be suffering from defects. Parents of children with ailments were invariably notified and advised to obtain the necessary treatment but often to little purpose. One investigation disclosed that at least 55 per cent. of the children notified as suffering from defects had not had any form of treatment and, of the others, many had not received the prolonged and continuous medical treatment necessary to effect a cure. Sometimes parents evaded their responsibilities through carelessness or apathy; but often they

were too poor to afford the expense of the long course of treatment necessary in some maladies, or were unable for various reasons to attend at a hospital dispensary or elsewhere; attendance often meant loss of wages and additional expense of travelling to and from the place of treatment. Much of the effort, therefore, on the part of the medical and nursing staffs was nullified by the lack of easily obtained facilities for treatment and the absence of any official organisation to ensure regular and continuous treatment. A logical development of the medical inspection scheme appeared to be that power should be given to Education Authorities to establish school clinics where treatment would be available to selected cases. There was already provision for this in England and Wales where the Education (Administrative Provisions) Act, 1907 authorised the Board of Education, after enquiry, to grant the power to any local education authority to establish and maintain a school clinic or clinics for classes of diseases specified. Numerous school clinics had already been established south of the border and were working satisfactorily.

First Residential School Arrangements.

Early in 1912, the School Board of Glasgow made arrangements with the managers of the Biggart Memorial Home at Prestwick for the reception of physically handicapped children who were considered likely to benefit by the fresh air and treatment afforded there and who might at the same time continue with their education. The first class of twenty pupils was opened in April, 1912 and most of the children admitted suffered from various forms of non-pulmonary tuberculosis although there were also a few cases of rickets,

anaemia, chronic bronchitis and debility. A staff of nurses looked after the children, administering medicines and surgical dressings where required. This was an important step in the provision for the physically handicapped and was an extension of the approved principle of the open-air school system adopted elsewhere. A day school had of necessity to be situated within easy distance of the homes of the children in order that they might go to and from it each school day; but the residential school had the greater advantage, if placed farther from the City, of being in ideal surroundings where the children would be living constantly in a suitable environment by day and night, instead of only a few hours on five days of the week.

Feeding and Clothing.

In the early days of the Service, industrial depression was common and medical officers and nurses were frequently called upon to examine necessitous children reported to be in need of food, boots or clothing. The duty of feeding and clothing necessitous school children was laid upon School Boards by the 1908 Education Act; in discharging this obligation the Govan and Glasgow Boards were at first able to enlist the services of voluntary agencies, but with increasing demands the Boards were obliged in 1911 to open cooking and dining centres of their own and to supply boots and clothing.

First School Clinics.

The welfare of the ailing, necessitous child had exercised the minds and energies of the School Boards for a long time before special Government grants were received for the provision of

treatment facilities. In 1913 an Education (Scotland) Act was passed which enacted that a school board had, and was deemed to have had since the commencement of the 1908 Act, the same powers and duties to provide medical (including surgical and dental) treatment as they had had with reference to the provision of food or clothing or personal attention under Section 6 of that Act.

In Glasgow, the first treatment clinics were opened in October, 1912 after intimation had been received from the Scotch Education Department early in the autumn of that year that a Government grant would be available. An interesting sidelight on costs in those days is shown by the following extract from the Govan Parish School Board Report of 1913 detailing the cost of equipping two clinics with apparatus for treating dental cases, eye diseases, ear, nose and throat conditions, and defects of the skin:-

| | | |
|---|---|---|
| I. | - Dental Equipment comprising oil pump, dental chair, flush spittoon, electric dental engine, movable electric light, bracket table, dental cabinet, electric steriliser, complete set of dental instruments... approximate cost... | £140 |
| II. | - Oculist's Outfit comprising set of trial lenses, adjustable trial frame, ophthalmic bracket lamp, test types, set of colour wools, ophthalmometer, and skiascope... approximate cost... | £ 65 |
| III. | - Ear, Nose and Throat Instruments, including instrument cabinet... | £ 37 |
| IV. | - Skin Department - X-ray Apparatus. | £ 90 |
| | Cost of Outfits for Two Clinics | £332 |

The first appointments made by the Glasgow School Board in connection with the new treatment scheme were - 8 part-time dentists, 3 anaesthetists for dental cases, 3 oculists, 1 aurist, and 1 dermatologist; those made by the Govan Parish during the same year were - 1 dentist, 1 ophthalmic surgeon, 1 aurist and 1 dermatologist. During the first complete school year after the clinics were opened the numbers of children treated at the various clinics and the numbers of attendances were as given below.

Cases treated during year ending June, 1914.

| | | Govan Area | | Glasgow Area | |
|---|---|---|---|---|---|
| | | No. of Children | No. of Attendances | No. of Children | No. of Attendances |
| I. | Eye Disease. | 1,331 | 7,663 | 1,514 | 5,497 |
| II. | Skin Disease. | 742 | 1,304 | 1,056 | 5,101 |
| III. | Ear, Nose & Throat Cases. | 278 | 589 | 1,385 | 36,922 |
| IV. | Dental Defects. | 512 | 733 | 3,683 | 4,791 |
| V. | General Cases. | 514 | 948 | - | - |

The outbreak of the First World War with its demands on medical and nursing staffs delayed expansion of activities which would assuredly have taken place. At one time (in 1917) the School Health Service in the Glasgow area had the Chief Medical Officer, 2 Assistant Medical Officers, 7 Part-time Medical Officers, 4 Part-time Dentists, and 9 Nurses on War Service. However, with temporary assistance, a modified programme of routine medical inspection and the treatment of defects at school clinics continued in spite of the pressure of other work, especially in connection with the examination

of children reported as being in need of food and clothing.

Progress during the First Decade.

From the results of medical inspection during the first decade (1909/10 - 1918/19) it was evident that there had been justification for the creation of a school health service. Many of the defects found by medical officers in the children examined had not previously been discovered and were unlikely in the absence of such a Service to have become apparent before attaining a grave or chronic stage which would not have yielded readily to treatment. The educational influence on the parents of contact with the school medical officers who interviewed them while the children were being examined was expected to have far-reaching effects in inculcating a sense of responsibility for the physical welfare of their children, particularly withregard to maintaining them in a cleanly condition and free from vermin. A comparison of the 1919 statistics with those of 1910, in the Glasgow area alone is given below. It shows the percentages of defects found in children at routine medical inspection, but it should be noted that the figures in those days included children shown under more than one defect and not according to the major defect in each section, as became the practice later. The comparative details, however, even after making reasonable allowance for any differences in interpretation, present a picture of progress over the first ten years of medical inspection that can only be regarded as satisfactory.

| | 1919 | 1910 |
|---|---|---|
| Clothing (insufficient, in need of repair or dirty) | 1.3 | 10.2 |
| Footgear (unsatisfactory or none) | 3.0 | 12.1 |
| Head (dirty or verminous) | 11.1 | 29.7 |
| Body (dirty or verminous) | 2.3 | 7.3 |
| Skin Disease | 3.8 | 4.7 |
| Defective Teeth | 77.7 | 83.2 |
| Nasal Conditions | 1.4 | 5.0 |
| Throat Conditions | 7.4 | 26.4 |
| Enlarged Lymphatic Glands | 2.2 | 15.4 |
| External Eye Diseases | 3.0 | 6.3 |
| Ear Conditions | 2.9 | 2.2 |
| Hearing Defects | 0.9 | 2.3 |
| Speech Defects | 0.8 | 4.3 |
| Heart and Circulatory Conditions | 1.0 | 3.1 |
| Lung Conditions | 2.8 | 2.8 |
| Rickets | 5.6 | 8.9 |

On the treatment side the work had also been proceeding satisfactorily in spite of the war difficulties. In the Govan and Glasgow areas the numbers of new cases and the total attendances during the year 1918/19 were as undernoted:-

| | Govan Area | | Glasgow Area. | |
|---|---|---|---|---|
| | No. of Children | No. of Attendances | No. of Children | No. of Attendances |
| Eye Disease | 1,540 | 13,659 | 1,635 | 28,591 |
| Skin Disease | 1,886 | 8,322 | 4,675 | 43,151 |
| Ear, Nose & Throat Cases | 278 | 1,045 | 774 | 28,390 |
| Dental Defects | 300 | 451 | 2,432 | 2,869 |
| General Cases | 44 | 126 | - | - |

Of the eye diseases treated in the Govan area clinics, Blepharitis Marginalis formed about 20 per cent. and Ophthalmia close on 50 per cent. while in Glasgow 86 per cent. of the new cases dealt with had Blepharitis or Conjunctivitis. Skin cases treated

were mostly of a contagious nature, especially Impetigo and Scabies, and to a lesser extent, Ringworm; the first two had been on the increase during the war due probably to the return of men from the trenches and to increased overcrowding owing to the shortage of houses. E.N.T. cases mostly comprised enlarged tonsils, adenoids or a combination of both, and chronic otorrhoea. In the treatment of dental cases, the ratio of extractions to fillings was just under 4 to 1 and 2 to 1 in Govan and Glasgow areas respectively. The general treatment clinic in Govan had had to be abandoned during 1919 owing to pressure of other work and suitable cases requiring treatment were dealt with at schools.

# CHAPTER IV.

## PERIOD 1919/20 - 1928/29.

### Administrative Changes.

In terms of the Education (Scotland) Act, 1918, the work of the School Boards was, on 16th May, 1919, taken over by the Education Authority of Glasgow whose area comprised the districts, so far as these came within the municipal area of the City of Glasgow, of the following School Boards - Glasgow, Govan, Cathcart, Eastwood, Shettleston, Renfrew, Rutherglen, Old Kilpatrick and Oswald Combination. The Authority was elected on 4th April, 1919 on the principle of proportional representation, the city having been divided into seven areas for electoral purposes. On 16th May, 1919 also, all "Voluntary" schools - that is, schools of a denominational character - were transferred to the Education Authority by the managers of these establishments who were entitled so to do under Section 18 of the Act, although final adjustment of the transfers was not completed until 1921. (The terms "transferred" and "non-transferred" have been used ever since to indicate schools attended by Roman Catholic and Protestant children respectively.) The administration of the new Authority henceforth included, therefore, the schools formerly under the control of each of the constituent School Boards (other than Rutherglen) referred to above, also all the Roman Catholic schools and the one Episcopal school within the city.

In the year 1919/20 the number of schools under management of the Authority was 210, accommodated in 187 school buildings,

and the total number of children on the rolls was 198,551. The Medical Department staff at that time consisted of 1 Principal Medical Officer, 1 Depute Medical Officer, 7 Assistant Medical Officers, 1 Oculist, 2 Dentists, 1 Supervisor of Nurses, 64 Nurses (24 of whom were employed at various special schools and classes), 1 Clerk to the Committee on Medical Inspection and Treatment, and sufficient clerical staff. Part-time staff was as follows:- 3 Oculists, 2 Aurists, 2 Dermatologists, 2 Mental Specialists, 9 School Medical Officers, and 5 School Dentists. By 1925, five additional whole-time School Medical Officers, one Dentist and ten Nurses had been appointed; and by 1929 the number of Dentists had been increased by two more.

Organisation of Inspection and Treatment Scheme.

The scheme of Routine Medical Inspection in ordinary schools had developed into the examination of the following age-groups:- (1) entrants and all in the Infant Department who had not previously been examined; (2) the 9-10 years old group; and (3) children aged 13-14 if time permitted. "Abnormals" (pupils previously found to be suffering from disease or defect) were re-examined and "non-routines" (special cases presented by teachers) were also examined by medical officers in the course of routine inspection in schools. Pupils attending Special Schools and Classes were also systematically inspected: (1) as "entrants" and if not previously examined; (2) when approaching 14 and 16 years of age; and (3) if presented by teachers or nurses as requiring re-examination. From the year 1922, nursery

school children were included in the routine inspection scheme and the nursery schools were visited regularly for that purpose by a school medical officer. Other inspections undertaken by the medical staff included (1) examination of applicants for licences under the Authority's Bye-laws relating to the Employment of Children as drawn up under the Education (Scotland) Act, 1918 (which amended the Employment of Children Act, 1903) and became operative on 9th February, 1921; (2) examination of junior students; (3) examination of adult employees of the Authority; (4) examination and supervision of inmates of the residential schools; and (5) the inspection of school premises, particularly with regard to their sanitary condition. From time to time other work was interposed, such as in the last quarter of 1920 when almost 15,000 pupils attending 118 schools were vaccinated following the removal to hospital of two children with smallpox.

Medical treatment at school clinics was only provided for "necessitous" children who were suffering from diseases of skin, ear or eye (including defective vision) or had defective teeth or "general" ailments such as anaemia, bronchitis, etc. As the legislation in those days permitted an Authority to treat only cases where parents were unable themselves to obtain the necessary treatment, a system had to be evolved whereby the health of a child was considered first and the bona fides of the parents afterwards. The machinery adopted was briefly as follows. Cases requiring treatment were reported to the Central Office by school medical officers, teachers and attendance officers by means of a form incorporating a statement by the parent of inability

to pay and a request for treatment. All such cases were subsequently notified to attend the appropriate clinic when the medical officer would be present, the parent at the same time being sent a form explaining the position as regards treatment by the Authority, and asking for a signed statement that the income was below a stated standard. The child was placed on treatment immediately but the form on return was referred to an investigating officer for scrutiny or investigation and cases adjudged to be non-necessitous were discharged from the clinic. No case was treated beyond the first occasion without the signed statement already mentioned. Urgent cases could be sent direct to clinic, but the above described procedure was applied thereafter. Cases of defective teeth and defective vision, however, were not summoned to clinic until the signed request by the parent was obtained, except when urgent cases were reported. No statement regarding inability to pay was insisted upon in cases of defective vision, as spectacles, if prescribed, were supplied at contract rates and the cost charged to parents in most instances. Notice was given to the headmaster on every occasion on which a child was to attend for examination or treatment.

Medical officers attended the clinics as often as required according to the number of cases to be treated. By the year 1929 there were 20 clinics in use, 9 housed in erections distinct from school buildings, 4 in school buildings but with separate entrances from school playgrounds used only by patients, and 7 (5 for skin, eye and ear treatment only and 2 for dental treatment only) were accommodated within school premises and approached by

staircases common to all children. The accommodation of so many clinics in schools was considered unsatisfactory by all concerned and it was suggested that special buildings should be provided in convenient parts of the city in co-operation with the Public Health Authorities. This hope was to be realised to some extent in the future although not during the administration of the Education Authority. (Provan Clinic, opened in October, 1935 was the first of the Corporation clinics in which provision was made not only for the School Health Service but also for other health services including maternity and child welfare.)

"Following-up" Scheme.

The "follow-up" of cases requiring treatment had from early times been undertaken by school nurses who visited the homes for the purpose of informing parents of any defects found in their children at routine inspection. About the year 1925 this system was discontinued as it was felt that the majority of parents had become fully aware of the benefits to be derived by their children from the school health service. A new method was adopted - school medical officers reporting cases in need of treatment to the Central Office to be dealt with by formal communication including the offer of clinic treatment. If the notice proved ineffectual, visitation by a school attendance officer usually obtained a satisfactory response. Nurses, however, continued, where necessary, to visit the homes of children excluded from school in order to induce regular clinic attendance or other attention.

The arrangements for "following-up" eventually developed into the following system; the school medical officer at routine inspection on discovering that a child required treatment, noted the case as an "abnormal" for re-examination at a later date and notified the parents that treatment should be obtained. If there was doubt as to the ability of a parent to provide treatment, and such treatment was of a nature provided by the Authority, the parent's signature was obtained on a card applying for medical attention at a school clinic. When the parent was absent and the school medical officer wished to ensure treatment he reported direct to the Central Office without obtaining a signature. Reports regarding clinic treatment were usually classified according to urgency by school medical officers, and teachers and attendance officers were invited to adopt similar classification when reporting cases for treatment. Cases marked "1" were considered as urgent or serious and if such a case failed to attend clinic on a first or second notice the attendance officer visited the parent and insisted upon immediate treatment at clinic or from a private medical practitioner whose name had to be stated. Further failure was followed by a threat of immediate prosecution for neglect. If private treatment was promised, the medical practitioner was telephoned regarding the case and subsequently written asking that the Authority be informed if the child was not brought for regular and continuous treatment until cured. Cases marked "2" and "3" were regarded as less urgent and slight respectively and were dealt with according to the circumstances of each case.

Provision for Handicapped Children.

Provision for dealing with physically and mentally handicapped children was developed during this period. Physically handicapped children for whom special facilities were provided had increased from 2,400 in 1920 to just over 3,000 by the end of 1929. These children were conveyed by ambulance to and from school and had the benefit of medical attention and supervision by school medical officers and by the nurses allocated to these schools. Mentally defective children were also dealt with, instruction in certain trades and crafts being available at a number of centres - the total number of these children on the roll increased from 1,450 in 1920 to 1,750 by 1929.

There were also centres for blind and partially blind children where Braille and oral teaching were given; a hostel for blind children was opened in January, 1919. Sight-saving classes for myopic children were extended and the numbers of children in attendance had risen to 120 in the year 1929 from 80 in 1920, the number of schools being also increased to four from three in the same period. (The first sight-saving class in Scotland was instituted early in 1914 in Broomloan Road School, Govan.) Deaf, partially deaf, and deaf-mute children for whom classes for the teaching of articulation and lip-reading were provided, increased from 90 to 200 in the ten years and the schools from two, one special and one ordinary, to four, comprising two day schools (one special and one ordinary) and two residential schools, one of the latter having a few day pupils. Dull and backward children were also provided for by the establishment of tutorial

classes. The pupils in each special day school and class were regularly under the supervision of an assistant school medical officer.

Residential school provision was extended considerably during the same period. The Biggart Memorial Home, Prestwick, which hitherto had been the only residential school accommodating physically handicapped children was supplemented by the addition, in October, 1924 of Woodburn House, Rutherglen, where 17 beds were reserved for physically handicapped girls who attended the classes at Burnside Special School during their residence. Smyllum Special School, Lanark, was subsequently opened for Roman Catholic boys and girls who were physically handicapped.

For some time, the Authority had been considering the introduction of another type of residential school, one where children more or less normal could have a holiday period without loss of education. The first of the "holiday" type was opened on 1st October, 1926 near Bearsden and was called Hillfoot Holiday School; it accommodated 70 Protestant girls. Shortly afterwards, the second of these schools, Springboig Holiday School, was opened with accommodation for 60 boys which was increased to 108 by the end of June. All these residential schools were in full operation by 1929; and the examination of the children before admission to the schools and their medical supervision during their stay began to occupy an increasing proportion of the medical staff's time. To deal with emergencies, the services of a local medical practitioner were retained for each school.

The Education Act, 1918, authorised the establishment of Nursery Schools for children over 2 and under 5 years of age whose attendance was necessary or desirable for their healthy physical or mental development. Education authorities were also empowered to attend to the health, nourishment and physical welfare of children attending nursery schools. This section of the Act regularised the nursery schools operated in conjunction with the school hostels which had been created in 1917 to care for children orphaned during the war, where the surviving parent had to go out and work and the children were deprived of proper home supervision. The children admitted to the hostels, if between the ages of 2 and 5 years were taught in nursery classes by teachers or were looked after by guardians; those over 5 left the hostel each day to proceed to ordinary school classes, returning to the hostel for dinner and tea. In 1920, there were 13 hostels, 10 of which also had nursery schools; 750 pupils were in the hostels and 150 in the nursery schools.

Arrangements for the feeding of school children also underwent some change during this decade, chiefly because the number of applicants increased during the industrial depression of the 1920s. All the meals, except for a few special schools, were cooked at Dovehill Cooking Depot. Necessitous children were supplied with meals free of cost to parents, the Education Authority being re-imbursed, in a few instances, by the Parish Council. Pupils attending schools for physically and mentally defective children were provided with dinners; the parents if not necessitous were charged at the rate of 1/3d. per week or

1/5½d. when cod liver oil emulsion was included. Children in school hostels were also supplied with meals - breakfast, dinner and tea - and parents made payment according to circumstances.

In the year 1920, approximately 1,200,000 meals were supplied of which 17 per cent. were given free of charge to necessitous children in ordinary schools, 39 per cent. to physically and meantally defective children and paid for by parents, 37 per cent. for payment and 7 per cent. free of charge to children in school hostels. The net cost to the Education Authority in 1920 was 2½d. per meal. During the next few years the prevailing industrial distress was reflected in the increasing number of applications for free meals. Almost 3,000,000 meals were provided in 1921 to children in schools and school hostels, approximately 2,000,000 being supplied free to necessitous cases and more than half a million being given to partly necessitous children. In 1922, the phenomenal total of 11,331,175 meals was supplied, 10,325,047 being to necessitous and 607,862 to partly necessitous cases. The following year saw a drop in the total to about 2,200,000 meals, of which about two thirds were supplied to necessitous children. Thereafter, the total supply of meals each year declined until 1927 when the total rose to slightly over 3,000,000 almost 90 per cent. being necessitous and the Glasgow Parish Council paying for almost a million and a quarter of the meals provided. In 1929 the approximate figures were: 1,000,000 meals to necessitous children at ordinary feeding centres, 100,000 of which were paid for by the Parish Councils;

390,000 dinners to physically and mentally defective children on payment by parents; 600,000 meals to school hostels. The average cost in 1929 to the Education Authority was 2.85d. per meal.

A Special Investigation into the Nutritive Value of Milk.

The nutritive value of milk as an article of diet for school children was demonstrated in a series of experiments undertaken at the instigation of the Empire Marketing Board by the Scottish Board of Health. Four elementary schools in Glasgow were used for the test, each providing groups of children in the age groups - "Infants", "Intermediates" and "Leavers". The test occupied two years, 1927 and 1928, in the first of which the children were aged respectively 5, 8 and 13 years. In 1928 the same children in the first two groups were continued in the test but as most of the "Leavers" had left school that group was discontinued.

The modus operandi was briefly as follows. Milk was supplied to the children in quantity according to age - $\frac{3}{4}$ pint to "Infants", 1 pint to "Intermediates" and $1\frac{1}{4}$ pints to "Leavers". In the first year, the groups in one school were given whole milk, to those in a second school, separated milk, to a third a biscuit of the same heating value as the feed of separated milk, and to a fourth school no addition to their diet was made - the groups in the last acted as "control". Half of the milk ration was given at 11 a.m. and the remainder at 3 p.m. In the second year some of the groups were reversed, so that children who in 1927 had received separated milk, in 1928 had biscuits, and those who had had biscuits in 1927 had separated milk in 1928. Heights

and weights of the children in all groups were systematically taken.

Comparison of the heights and weights of the same children taken during the feeding and the non-feeding periods clearly established the dependence of growth on the type of food given. Moreover, where the feeding was reversed the difference in growth was proved to be not inherent in the children themselves, but due to the kind of food given. Put concisely, the results of the investigation showed that during the first year there was an increase in height and weight which was 21 per cent. greater in the milk groups than in the non-milk (biscuit and "control") groups; in the second year there was an increase in height of 23 per cent. more and in weight of 45 per cent. more than in the non-milk groups. The "milk" children were seen to be brighter, more boisterous, intellectually smarter, better nourished, hair glossy and brighter and nails smooth.

Incidentally, the investigation revealed the surprising fact that separated milk was as good as whole milk. It was considered that the presence in the separated milk of the proteins and salts and some of the vitamins of the whole milk would be of sufficient nutritive value and that the fat in the whole milk did not itself make for a further increase in growth because the children were obtaining enough fat in some form at home. Separated milk, because of its cheapness could, therefore, be added with advantage to the diet of growing children, but where fats, especially butter or good margarine were not provided in sufficient quantity whole milk ought to be given. Whole milk was also superior to

separated milk by reason of its associated Vitamin A which was a factor in diminishing the liability to disease, especially of the respiratory tract.

Health of School Children in the 1920s.

Medical inspection in schools during the first half of this decade revealed unsatisfactory conditions of health in the children examined. Of the recorded defects, almost the only satisfactory features were the continued improvement as regards rickets and the steady decline of scabies after its rise during the war. The prolonged unemployment and resultant poverty which was prevalent at that time was no doubt partly responsible for the poor physical condition of the children, as exemplified by increases in catarrhal and debilitated conditions, and for the deterioration of cleanliness indicated by the increased numbers with verminous and minor contagious defects. During the same period, the numbers of cases reporting for treatment at the clinics increased greatly and this was due largely to the depression which by bringing more within the "necessitous" category provided the essential qualification for free treatment. The increasing attendances, however, were to some extent due to another reason - the influence of growing public knowledge of the treatment facilities available through the school health service. This tendency appeared to be shown in particular by the steadily increasing numbers of cases attending for the treatment of minor injuries.

During the years 1925 and 1926 an improvement was noticeable for most of the listed defects but it coincided with the extension

of the medical inspection scheme to a greater number of the older children as the result of increased medical staff. An increase in the dental staff also permitted more time to be allocated to dental inspection in schools, and dental treatment was gradually becoming more conservative and less of a "first-aid" nature for the treatment of cases with advanced dental decay. In 1927, the balance of the medical inspection and treatment scheme was again upset by an industrial dispute which by affecting the financial position of many families caused an increased demand for treatment and consequently restricted the amount of time available for inspection. The medical inspection records of that year revealed a slight deterioration in the health of the children examined at schools, but clothing, cleanliness and dental conditions showed some improvement. In the last two years of the decade (1928 and 1929) all-round improvement was recorded except in the matter of cleanliness.

The Results of Medical Inspection in 1920 Compared with those in 1929.

Over the ten years there had been some improvement in health but not so much as would have been likely but for the spells of economic distress which supervened. Comparison of the results of medical inspection in 1929 with those returned in 1920 show that little, if any, improvement was observable in the incidence of minor dental defects although there was an improvement in the frequency of occurence of major dental conditions. Nasal defects were more common (especially catarrh) and throat abnormalities were just as numerous; there was in particular

an increase in the proportion labelled "probable adenoids" although this may have been mostly due to more rigorous inspection in view of greater facilities becoming available for operative treatment. Of the external eye diseases, the incidence of strabismus was unimproved; hearing and speech defects were found more frequently as also were heart and circulatory conditions. Conversely there was considerable improvement with regard to clothing and footgear, while uncleanliness of head (including nits and vermin), ear conditions (except for otorrhoea), rickets and nutrition showed some improvement. The provision of school meals to necessitous children, increased during the bad times, would probably have had a measure of success in restricting the full effect of the distress, and this appears to be borne out by the improved standard of nutrition.

In this connection, also, the average heights and weights of school children in the three principal age-groups appeared to agree with the fore-going - such measurements, in the mass, when compared over a lengthy period are usually considered to be indicative of the general physical condition, especially when other relative factors are in agreement. The average measurements for each of the quinquennial periods between the school years 1909/10 and 1928/29 are given below and it is interesting to note that the "entrants", who could only have been eligible for school meals for a very short space of time prior to their routine medical examination, showed practically no improvement, whereas the older pupils, who had had greater opportunity from

which to derive benefit from regular school feeding showed appreciable increases in the averages of both height and weight: this is particularly noticeable when the quinquennial period 1920-24 is compared with the period 1925-29.

Average Measurements of Glasgow School Children in Quinquennial Periods.

| | 5 years of age | | | | 9 years of age | | | | 13 years of age | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Ht. in inches | | Wt. in lbs. | | Ht. in inches | | Wt. in lbs. | | Ht. in inches | | Wt. in lbs. | |
| | B. | G. | B. | G. | B. | G. | B. | G. | B. | G. | B. | G. |
| 1910-1914 | 40.0 | 39.9 | 38.5 | 37.9 | 47.1 | 47.2 | 54.0 | 51.7 | 54.5 | 55.0 | 72.8 | 76.4 |
| * 1917-1919 | 41.1 | 39.4 | 38.5 | 37.5 | 48.0 | 47.5 | 54.6 | 52.1 | 55.9 | 56.0 | 76.1 | 77.3 |
| 1920-1924 | 40.5 | 40.1 | 39.1 | 38.0 | 48.5 | 47.9 | 54.3 | 52.8 | 55.1 | 55.9 | 75.0 | 78.2 |
| 1925-1929 | 40.8 | 40.3 | 39.1 | 37.7 | 49.0 | 48.7 | 56.7 | 54.6 | 56.0 | 56.3 | 78.2 | 80.9 |

* No records for 1915 and 1916.

## CHAPTER V.

## PERIOD 1929/30 - 1938/39.

The year 1929 was the last of ad hoc educational administration in Glasgow as a result of the passing into law of the Local Government (Scotland) Act, 1929. By the terms of this Act the functions of the Education Authority in Glasgow (including the duties of providing medical inspection and treatment) were transferred to the Corporation - the transference taking place on 15th May, 1930. The effect on the school health service was that it became amalgamated with the general public health service and so furthered the co-ordination which had already operated for many years. Other benefits derived from the amalgamation were the opening of joint clinics and the making of reciprocal arrangements for treating children suffering from ailments. Some details of these developments will be given later.

### The Milk in Schools Scheme.

One problem - nutrition - which had occupied for so long the minds of all responsible for the welfare of the young, was eased by the introduction of the Education (Scotland) Act, 1930. The Act made it lawful for an Education Authority to supply milk of the best grade locally available to pupils attending schools in the area and to recover from parents the cost or part cost, as economic circumstances indicated, of the milk supplied. It was expressly stated that the conditions in the Education (Scotland) Act of 1908 restricting provision of food to necessitous children were inapplicable to any scheme for supplying milk under the terms of the 1930 Act. The nutritive value of milk for school

children had already been demonstrated in the investigation described above and Education Authorities were recommended to foster the regular consumption of milk by the children and by that means promote healthy growth and all-round improvement in health.

Following the passing of the Milk Act of 1934, under which arrangements could be made for the supply of milk through the Scottish Milk Marketing Boards, Glasgow introduced its scheme in March, 1935. A ration of one third of a pint per child was issued, the milk being of high quality pasteurized and supplied to each child at the price of a halfpenny or free of charge to children on the Education Department's Free Meals Register. The quality of the milk was regularly tested by means of bacteriological, biological and chemical analyses and found to be of consistently high quality. An attempt was made to compare the growth of the children during the period March to June, 1935 (when the milk was issued in schools) with that of children during the same period of 1934 (when no milk was provided) and the findings appeared to indicate that the milk ration tended to accelerate the rate of growth over the period of observation.

Tonsil and Adenoid Operations.

The period of the nineteen-thirties was one of expansion on the treatment side, mainly as a result of co-ordination with the other public health services. In August, 1930, operations for the removal of tonsils and adenoids were carried out for the first time at the Western District Hospital instead of at Shakespeare School Clinic. Patients were admitted one evening, operated on

the following morning and usually discharged twenty-four hours after operation; as a result it was possible to perform more operations than hitherto and so reduce the waiting list.

The efficacy of the tonsils and adenoids operation for improving the health of children with various ailments had been doubted in some quarters and in 1932 an investigation was made of children who had undergone the operation. The defects considered to warrant operation were deafness, mouth-breathing, otorrhoea, recurring sore throats, enlarged cervical glands, cough due to tonsillar enlargement, defective speech, and nasal discharge; frequently the children suffered from more than one of these complaints. Out of 280 children examined, eight to fifteen months after operation, 116 (59.3 per cent.) were found to be cured of all the conditions due to which they were recommended for operation. Of the total 516 conditions nominated as affecting the 280 children, 380 (73.6 per cent.) of the individual conditions were cured. The parents, on being asked for their opinion regarding the general health of the 280 children, reported that 49 were much improved, 193 were improved and of the remaining cases ("no change") 5 were said to have had good health before the operation.

Other Special Investigations.

A number of investigations were undertaken during the period under review. One of these was an enquiry into the incidence of speech defect in the year 1930 in the course of which 1,984 stammering school children were reported, mostly slight cases. Teachers of stammering children were given a course of instruction

at Jordanhill Training College by the Psychologist and the phonetician, practical instruction being provided in schools on Saturday mornings when a class of stammering children was assembled for the purpose. As a result, it was possible to form classes for the teaching of many of these handicapped children.

Another experiment was undertaken in 1931, this time to investigate the value of the provision of spectacles to children with defective eyesight. The examinations of 8,612 eyes were analysed before and after correction of vision by glasses; "good vision" being taken as 6/6; "fair" as 6/9, 6/12; and "bad" as 6/18 or worse. The following table summarises the percentages found before and after correction by glasses and the degree of improvement obtained.

| | Type of Vision. | | |
|---|---|---|---|
| | Good (6/6) | Fair (6/9, 6/12) | Bad (6/18 or worse) |
| | % | % | % |
| Before correction by glasses | 7.3 | 29.4 | 63.3 |
| After correction by glasses | 30.8 | 54.2 | 15.0 |

Orthopaedic Treatment Facilities.

Extension of the existing School Health Service facilities for orthopaedic treatment was agreed upon by the Corporation in April, 1931 - the intention being to provide treatment for physically defective children for whom the School Health Service and the Child Welfare Service were jointly responsible. The premises at Ashley Street were adapted to make it an advisory remedial and consultation Centre to which patients could be referred from

different sources. A workshop was provided where minor alterations to splints and plasters could be done and thus spare parents the cost and inconvenience of long journeys to and from hospital; electrical apparatus was also provided. Cases referred to the new clinic were examined by the Senior Assistant Medical Officer, School Health Service and by the Orthopaedic Surgeon of Mearnskirk Hospital, who decided upon the treatment required and referred the children to the particular branch appropriate to the type of case. The simplest cases were referred to the physical training staff of the Education Department for collective class correction exercises; others attended the existing Orthopaedic Clinic for remedial exercises and treatment by a staff of medical gymnasts assisting the medical officer; and the remainder were sent to Mearnskirk Hospital, the Royal Hospital for Sick Children or other residential institutions for surgical treatment. Provision was also made for additional specialist medical services when required.

Post-operative supervision of orthopaedic cases became centralised in the Ashley Street Centre, the surgeon who performed the operation having direct personal supervision of his patient; the latter therefore received the maximum benefit from post-operative treatment. With other cases requiring periodical re-examination, minor repairs to splinting, etc., the clinic was gradually turned into a clearing-house for all varieties of orthopaedic cases. In brief, the Clinic became a special diagnostic and treatment centre for all types of orthopaedic deformity or defect, and at the same time was a centre for the post-

operative supervision by the operating surgeon of children sent to hospital by all Corporation departments.

Co-ordination with Other Departments.

Another example of successful co-ordination was the effort to reduce the prevalence of scabies. A new scheme was introduced in January, 1933, whereby infected families were notified to the Health Department for supervision and home visitation, adults as well as children being admitted to Moffat Street Reception House while home, bedding and clothing were being disinfected.

Other examples of co-ordination with Corporation Departments which greatly facilitated the work of the School Health Service were as follows:-

(1) Supplies of drugs and dressings were drawn mostly from the Central Drug Store of the Health Department and specially prescribed medicines were obtained from district dispensaries of the Outdoor Medical Service instead of as formerly at the premises of a private chemist.

(2) Investigation of "necessity" was simplified by means of an arrangement with the Director of Public Assistance, whereby each child was placed on treatment on the understanding that the family income was below the appropriate scale of necessity and a report was sent to the Public Assistance Department. If the income was found to be "over scale" and the disease was not infectious, chronic or of a special nature, a demand for refund by the Corporation of the cost of treatment was made to the parent; in 1931, the sum of £40 was recovered in this way.

(3) Children discharged from infectious disease hospitals

were notified to the School Health Service for treatment and after-care. In addition, other children discharged from hospital after treatment for pneumonia were followed up and some were admitted to residential and holiday schools for final convalescence.

(4) Adoption of the "Hollerith" system for records of routine medical inspection and the use of the "Hollerith" installation of the city health department for dealing with these records facilitated the compilation of statistics for the Annual Reports.

Care of the Blind.

Blind school children were benefited by certain improvements arranged with the Joint Committee for the Blind. Under the provisions of the Blind Persons Act, 1920, extensive powers were given to care for the blind after 16 years of age by means of training, subsidised employment, and pensioning at 50 years of age. In 1929, West of Scotland Certifying Clinic for the Blind was opened in Glasgow, to determine if applicants were too blind to perform work for which eyesight was essential. By arrangement with the Joint Committee, all school children nominated for admission to the Corporation's classes for the blind and children in the sight-saving classes who were likely to become blind were sent to the Certifying Clinic for certification according to an educational standard - that is, whether they were too blind to read the ordinary school books normally in use. Moreover, such children were kept under constant medical supervision by the School Health Service, as in the past, and at the age of 16 years were passed on to the Joint Clinic with a view to training in some trade or occupation. As a result, complete and continuous medical

supervision was provided from the time of first discovery of defect to the end of training. Subsequently, the local authority, by the Blind Persons Act, 1938, had to provide for blind infants, pre-school and school children, young persons over 16 years and to give a pension at 40 years of age.

Dental Inspection Schemes.

In 1936, an experiment with regard to dental inspection was undertaken and continued for some years thereafter. Formerly, a limited amount of dental inspection by school dentists had been carried out, generally among the younger pupils in the poorer schools, and it had been the practice for parents to be notified formally to obtain the necessary treatment for their children. This method involved much preparatory clerical work, and left a smaller proportion of treatment time for dentists. Accordingly, a "first dental card" was devised and issued to the parents of children in the Infant Departments who were in need of dental treatment, the importance of dental attention from a general health point of view being stressed, and treatment by private dentist, or, in necessitous cases, by school dentist advised. The immediate result was increased attendances at dental clinics, mainly of infants requiring extractions and fillings of temporary teeth.

Various other methods of dental propaganda and inspection were tried from time to time and the following is one which produced satisfactory results so far as it went. Nine schools were selected and dentists from the school clinics nearby made frequent visits to the schools and were authorised to summon

patients direct to clinics. Treatment was insisted upon only where there were any serious defects which, in the opinion of the dentist, could be certified as dangerous to health and where successful legal pressure was considered possible. At the earliest visits, dentists found that of 3,276 children examined, 548 (16.7 per cent.) had sound teeth, and at the conclusion of their visits (that is, when the visits were no longer producing a satisfactory response), the dentists reported 1,582 (48.3 per cent.) with sound teeth. This intensive method appeared to demonstrate that it was possible, given persistent pressure, to attain a standard of 50 per cent. sound dentition among school children.

New Legislation.

The Education (Scotland) Act, 1936 was an important addition to educational legislation. The school age, as provided for in the 1918 Act, was extended to fifteen years but the coming into operation of this later school-leaving age was subsequently postponed by the Education (Emergency) (Scotland) Act, 1939, until a date to be determined later by the Secretary of State. The 1936 Act also set out detailed regulations for the employment of children who had attained the age of fourteen - these regulations including provision for medical opinion of the physical condition of the child and his suitability for employment in a proposed occupation. Other provisions in the Act made it the duty of an Education Authority instead of merely a permissive power, as in the Education of Defective Children (Scotland) Act, 1906, to make special provision for the education of mentally and physically defective children between 5 and 15 years of age and their convey-

ance to and from school. The category of physically defective children was extended to include those unable to attend ordinary school by reason of ill-health - special schools and classes were here intended - vacation schools and classes; play centres and holiday or school camps were also provided for and it became the duty of the Education Authority to provide efficient education for deaf children between 3 and 18 years of age.

Another Act affecting school children was the Children and Young Persons (Scotland) Act, 1937, which inter alia regulated the conditions under which school children between the ages of 13 and 15 years could be employed. The Corporation, under the terms of the Act, drew up Byelaws limiting employment and setting out a list of prohibited occupations; children had to be fit educationally and physically before licences for employment were granted. One important Section of the 1937 Act (No. 12) defined "neglect" of a child and made the person responsible liable to specific penalties. Neglect was to be inferred if adequate food, medical aid or lodging was not provided for the child, even where the responsible person, himself unable to provide these things, had failed to take the necessary steps to have them provided.

Preventive Measures - Progress.

On the preventive side, there was steady advancement. A rapid development had taken place in the provision of open-air schools and of open-air extensions to existing schools. In 1930 there were 30 such schools and open-air classroom extensions to 9 old buildings. By 1939, there were 62 school buildings, ordinary and special schools, erected on open-air principles with, in

addition, 25 schools in which open-air accommodation had been provided. It was estimated that over 25 per cent. of the school population at that time was housed in open-air schools and classrooms. Regular visitation of schools was made by School Medical Officers for the purpose of investigating the conditions under which the scholars worked. In 1939 special "sanitary surveys" of a number of schools were made and the appropriate Department of the Corporation informed with a view to improvement, if possible, or amelioration in the case of more or less serious defects.

The residential schools already mentioned, one for physically handicapped children in Prestwick and the two "holiday" schools were still functioning in the year 1939. There was adequate provision for physical training in schools; playing field facilities in 1939 were functioning for 86 schools and swimming practice and instruction was available in 14 Corporation public baths and 6 school baths. Spray baths had been installed in 36 schools and practical instruction in simple hygiene was included in the curricula of schools. The supply of school meals had reached a total of 5,094,449 in 1939, most of these being provided for necessitous children, and the daily milk ration inaugurated in 1935 was continued as before, a total of 20,644,054 bottles (7,886,674 to necessitous children) being supplied in 1939. Boots and/or clothing were supplied in the same year to 32,842 children.

Revision of School Health Records.

An important memorandum was issued by the Department of Health in 1938, the instructions in which made some changes necessary in the collection of statistical information for the

Annual Report. It had been felt, for some years, that the statistics of defects found at the periodic medical inspection did not give a true picture of the actual physical condition of pupils as they did not adequately distinguish between the trivial and the more serious ailments. The School Health Service had attempted to meet this problem by the introduction in 1932, of a classification of defects in Glasgow school children according to their remediability; and the Department's instruction was an adaptation and extension of this classification. The new method was initiated in the 1939 Session and thus made the year 1938 the end of an epoch in the history of medical inspection, since the information obtained up to that time had been in accordance with instructions laid down in a memorandum issued by the Scottish Education Department in 1914. From 1939 onwards, therefore, direct comparison with statistics of earlier years was unreliable (practically the only exception being the average heights and weights).

The Position after Twenty-nine Years of Medical Inspection.

In view of this change in method of recording, it is of interest to review the main improvements observed in the health and physical condition of Glasgow school children over the twenty-nine years (1909/10 - 1937/38) since the introduction of routine medical inspection in schools. Average heights and weights had increased steadily and this improvement had been general - that is, the children of all social grades had participated almost equally in the gains. Some of the influences which led to the improvement were no doubt of broad general application, reflecting

improvement in social and environmental conditions; but the work of the new service also played an important part by promoting the care of health at school, fostering a more enlightened regime, and securing the treatment of ailments and defects discovered among the children. Some of the improvements are worthy of special comment.

Rickets - The percentages of children suffering from rachitic deformities improved from 9 per cent. and 5 per cent. respectively in the Glasgow and Govan Parish School Board areas during the period 1910-14 to 5.7 per cent for the combined area in the five years 1920-24 and to 1.2 per cent. in 1938. The percentages of children recommended for admission to special schools on account of deformities due to rickets was 58.2 in 1910, 35.6 in 1920 and 5.8 in 1938. Moreover, the full improvement was even greater than this, because the cases in existence in 1938 were nearly always of a much less severe type than was typical of the early years.

Ringworm of Scalp and Favus - These diseases were the cause of long periods of absence from school of many children in the early years; as many as 695 cases required treatment in one year (1921). This serious problem was tackled by the maintenance of a special "skin" school from 1920 to 1927 at which children received education and medical treatment which combined with X-ray therapy rapidly brought the disease under control to the extent that the average number of cases treated per annum had been reduced to 53 in the year 1938.

Tuberculosis (non-pulmonary) - The number of cases of tubercular disease of glands, bones and joints found in 1938 was the lowest ever recorded up to that time, and the same applied to the number of recommendations for admission to Special Schools. There were no cases then, such as had not been uncommon in 1910, when many with these conditions had discharging sores requiring daily dressing and who often had extensive deformity due to ankylosis of joints in faulty positions.

Chest Affections - These were still very prevalent, 2,231 cases (or 4.3 per cent. of the children examined) being found in the course of medical inspection in 1938, although it is true that no lower percentage had been given in previous Reports. In particular, the more serious cases of basal bronchiectasis and fibrosis secondary to broncho-pnemonia had become proportionately reduced.

Dental Conditions - Dental disease was still too common, only 20.7 per cent. of the children inspected during 1938 having sound teeth. On the other hand, the percentage of cases in which there were five or more decayed teeth was, at 10.5 per cent., about half the average for the years 1920-24 (20.3 per cent.).

Nutrition - Classification of the nutritional condition of children inspected in schools during 1938 revealed that 33,594 (64.1 per cent.) were of "good" nutrition and 1,312 (2.5 per cent.) of "bad" or "very bad" nutrition - the most satisfactory figures ever recorded.

It could easily be concluded in 1938 that the health of school children had already shown great improvement, and that the way to

further improvement had already been demonstrated. The necessary measures included routine medical inspection; provision of treatment and of facilities for remedying defects in necessitous cases; co-operation between teachers, parents and doctors in the care of health and in securing greater attention to cleanliness; feeding and clothing of necessitous children; development of the well-ventilated and well-lighted schools of open-air type; increasing opportunities for physical education with special attention to postural defects; the provision of gymnasia, open spaces, playing fields, swimming, and other recreational facilities. The introduction of the milk ration in 1935 had also contributed to the general improvement in the health of school children.

The Position in 1939.

By 1939 the School Health Service staff consisted of:- 1 senior medical officer, 17 school medical officers, 8 school dental officers, 73 nurses (including supervisor) and 33 clerks - all full-time. The part-time staff was 3 aurists, 1 dermatologist, 1 dentist, 4 oculists, 4 local medical officers and 1 dentist (for emergency duties at residential holiday and special schools), 2 medical officers and 1 dentist for approved schools, 1 mental consultant, and 1 inspecting medical officer for routine inspection in schools. In the same year there were 243 schools - 139 primary, 38 primary with advanced central classes, 12 advanced central, 24 secondary, 12 for physically handicapped, 4 for mentally handicapped, 8 for physically and mentally handicapped, 2 holiday schools and 2 nursery schools. In ordinary schools there were also special classes for physically handicapped (3) and mentally handicapped (7) pupils and there was one further

school not under Corporation control but in receipt of Education Authority grant and under medical inspection and supervision. The total number of children on the register was 177,653.

Routine medical inspection was provided in "ordinary" schools for (1) "Entrants-infants", (2) "Intermediates", (3) "Leavers" and (4) "Secondary" pupils. These were, children in the infant department not previously examined, and children approximately 9, 13 and 16 years of age for whom the qualifying years of birth were stated by the Department of Health for Scotland at the beginning of each Session. Children missed at routine age-group were subsequently examined systematically and pupils proceeding to the University with a view to entering the teaching profession could be presented for examination at any time. "Non-routines" and "abnormals" were also examined as required. Systematic inspection was also provided in Special Schools but "entrants" could be children in any department who had not hitherto been examined. Pupils in special schools and classes on approaching 12 years of age could be specially examined as to fitness for industrial training and mental defectives at intervals as required regarding mental condition. A "Leaving Interview" was introduced for the purpose of bringing up-to-date the medical records of scholars to provide information to National Health Insurance medical practitioners who could requisition summaries of the children's school medical histories.

Treatment - In 1939, there were 21 school clinic premises where treatment was given for one or more of the following defects:- skin, eye and ear, general cases, vision, dental, orthopaedic, X-ray treatment of skin, scabies baths, and U.V.R. treatment for

various conditions. A statement by the parent or guardian of inability to obtain treatment was a necessary preliminary to medical treatment at a school clinic, except that the clinics were available irrespective of the amount of family income (1) to treat emergency cases and those referred for decision as to fitness for school and (2) in all cases for examination of defective vision. Signed application for treatment was necessary in all cases. Cases were reported by medical officers, nurses, teachers, and attendance officers, and treatment was allowed or discontinued in accordance with the scale of necessity applicable, but infectious and chronic conditions were treated irrespective of family income.

The other work detailed previously in these pages was continued and sometimes extended, and the 1939 programme may be taken as marking a definite stage in the evolution of the School Health Service in Glasgow. That year was henceforth to be the basic one with which comparisons could be made and the 1938 memorandum of the Department of Health was to be the standard guide for school health administration for many years to come.

## CHAPTER VI.

## PERIOD 1939/40 - 1948/49.

This was an era of substantial progress in the care of the young; it is assuredly to the credit of the nation that, while yet preoccupied with war and its concomitant problems, it yet found time to devote so much of its resources to the welfare of young people.

### War-time Modifications.

The school year ending in July, 1940 was marked by the outbreak of the Second World War and by the first large exodus of school children which took place from the City in September, 1939. Many schools were handed over for war purposes and education was completely dislocated in the early months of the war, but towards the end of the 1940 Session it was found possible to make a slow return to a modified routine. Inevitably, medical inspection and treatment of school children suffered curtailment while the energies of the staff were mainly devoted to furthering the war effort, especially on duties connected with evacuation and air-raid precautions. School clinics were maintained in operation throughout but it was impossible to find all the ailing children and get them to attend for treatment; the collapse of the highly organised system of inspection and treatment here proved that school attendance and the influence of teaching staffs were essential for the effectiveness of medical inspection and for stimulating the children to seek improvement of health. The out-patient treatment of orthopaedic cases was transferred from the Ashley Street Centre to Mearnskirk Hospital in May, 1940.

Prevention of Uncleanliness.

Many of the reception areas alleged considerable uncleanliness of the children (and their mothers) evacuated from Glasgow in September, 1939 and strenuous efforts were made to remove any cause of complaint on this score in any future evacuation. Accordingly, when the schools began to reassemble, inspection was resumed and much attention was given to the eradication of uncleanliness and to cases in which other defects were brought to notice by doctors, teachers, or parents. For this work First Aid Posts were also utilised, medical officers and nurses from all branches of the Public Health services assisted from time to time, and the services of a number of General Practitioners were enlisted. In May 1940, children were inspected on the basis that they might be about to be evacuated and from June of that year onwards nurses were employed on full-time cleanliness inspection of children in 52 selected schools. Propaganda methods were used to encourage the wearing of short hair styles, schools and parents were circularised on the importance of keeping children's hair short, and later, copies of a new pamphlet were issued detailing methods of treating infected heads. More rigorous measures were also adopted (from June, 1940); under Section 122 of the Children's Act of 1908 formal notices from the Town Clerk were sent giving 24 hours to cleanse a verminous child and, failing compliance, the child was sent to a First Aid Post for compulsory cleansing. Emergency powers were sought for dealing with persistent cases of verminous heads by less cumbersome methods, but the Department of Health for Scotland would not approve in view of the voluntary nature of the Evacuation Scheme. Continuing

cases of nits were reported to the Royal Society for the Prevention of Cruelty to Children.

Hygiene Unit Scheme.

Another method of attacking the problem of uncleanliness was inaugurated in January, 1941 as an experiment in 6 selected schools. The Senior Woman Assistant in each school took charge of the scheme, being freed from other duties for this purpose, and she had the assistance of a Welfare Attendant who was generally a part-time milk attendant whose appointment was extended. All the children were examined in relation to cleanliness on at least three occasions during the Session, the children being classified according to the results. Private lessons in hygiene were given to children with unsatisfactory conditions, and they were informed that they should be cleansed at home or failing such their mothers should give written "consent" for cleansing at school. Mothers were invited to meet the Senior Woman Assistant privately in school regarding the cleansing of their children and they were encouraged to do the work themselves and were advised how to proceed. The infected cases were re-inspected frequently and each class received a regular hygiene lesson from the Senior Woman Assistant. Conditions of clothing and footgear in respect of repair, etc. were also supervised by class teachers. The scheme was considered such a success that it was extended to other schools in succeeding years until by 1946 there were 26 of the "hygiene units" functioning.

Incidence of Enuresis.

Another alleged complaint levelled against children evacuated from Glasgow in September, 1939, concerned the prevalence of

enuresis. Although this defect had not been particularly noticeable in previous years, according to the records of medical inspection and treatment, it was realised that the condition might have been deliberately concealed by parents. At emergency inspection, subsequently, there appeared to be grounds for this suspicion because as the result of direct and pointed enquiry the presence of the defect was admitted in approximately 3 per cent. of the children examined which, calculated on the basis of the number of children normally seen at routine inspection, would indicate that over 5,000 school children suffered from the defect compared with the 400 or 500 cases per annum treated at school clinics in ordinary times. It was considered, moreover, that the circumstances attending evacuation, such as anxiety at leaving home and parents, strangeness of environment and diet might produce emotional and other conditions productive of unsatisfactory results and so increase the apparent incidence of the defect.

Scabies Outbreak.

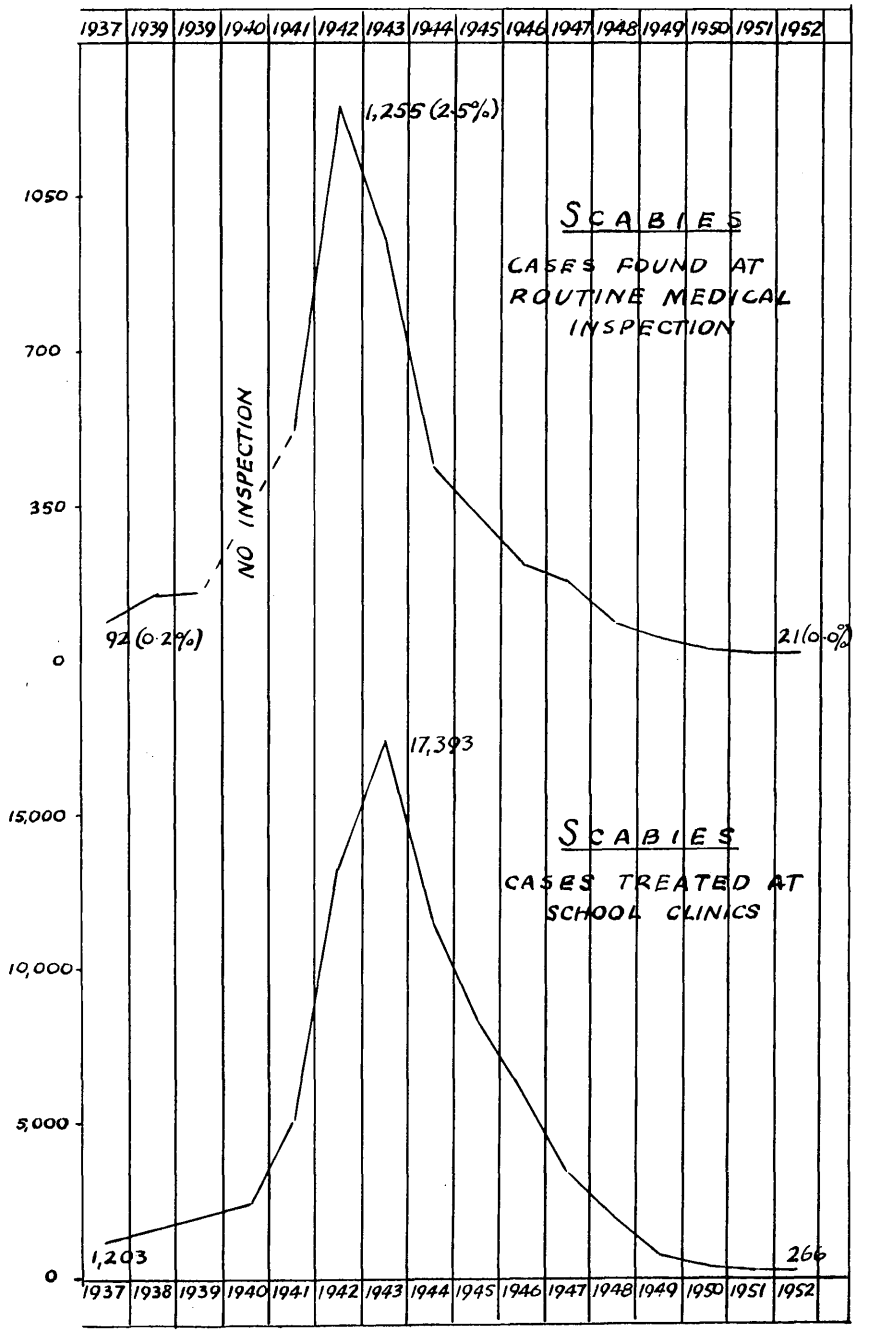
Other disturbing factors during the early years of the war were the prevalence of scabies and diphtheria. Scabies had been on the increase throughout the country since 1938, but the intervention of evacuation and school closures had obscured the situation until, with the return of the evacuated children and the partial re-opening of the schools, the seriousness of the position was revealed. Increased treatment facilities for scabies were provided at school and other clinics in 1941 and again in 1942, and in the latter year a special staff was formed in the sanitary divisions to visit the homes. The co-operation of teachers and school attendance officers

was also obtained in reporting suspected cases while school medical officers and nurses made special search at routine medical inspection. The "peak" year for detecting scabies at routine inspection was 1942 when 1,255 cases (2.5 per cent.) of the children examined were recorded, and the peak year for treatment was 1943 when 17,393 cases were treated at school clinics. Thereafter, the incidence fell rapidly, apparently as a result of the concerted efforts of all concerned. The rise and fall in the incidence of scabies since 1937 is illustrated in the following table and graphs.

Incidence of Scabies - 1937 to 1952.

| | No. & percentage found at routine inspection. | No. treated at School Clinics. |
|---|---|---|
| 1937 | 92 (0.2%) | 1,203 |
| 1938 | 146 (0.3%) | 1,566 |
| 1939 | 158 (0.3%) | 1,995 |
| 1940 | No inspection | 2,412 |
| 1941 | 522 (1.3%) | 5,039 |
| 1942 | 1,255 (2.5%) | 13,358 |
| 1943 | 947 (2.1%) | 17,393 |
| 1944 | 440 (0.9%) | 11,532 |
| 1945 | 323 (0.7%) | 8,409 |
| 1946 | 217 (0.5%) | 5,994 |
| 1947 | 178 (0.4%) | 3,307 |
| 1948 | 85 (0.2%) | 1,975 |
| 1949 | 54 (0.1%) | 751 |
| 1950 | 28 (0.1%) | 426 |
| 1951 | 16 (0.0%) | 276 |
| 1952 | 21 (0.0%) | 266 |

Figure 1.


1937 1939 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952
1,255 (2·5%)
SCABIES
CASES FOUND AT ROUTINE MEDICAL INSPECTION
1050
700
350
0
NO INSPECTION
92 (0·2%)
21 (0·0%)
17,393
SCABIES
CASES TREATED AT SCHOOL CLINICS
15,000
10,000
5,000
0
1,203
266
1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952

Diphtheria Immunisation Campaign.

Towards the end of 1940, a Diphtheria Immunisation Campaign was undertaken in schools, the programme of routine medical inspection being interrupted for the purpose. Many first-aid posts lent assistance and inoculations were also given in school clinics. Subsequently, an annual diphtheria immunisation campaign became a regular feature, spring being selected as the most suitable time, and while school medical officers were giving injections in schools to pupils and pre-school children, the regular diphtheria immunisation ad hoc clinics were available for all others desirous of being inoculated. In the early spring of 1949, the annual "drive" in the schools included the offer of "re-inforcing" injections to all primary school children instead of merely to nine-year-olds as had only been considered possible or advisable in the past. This experiment was adopted with the purpose of reducing the pressure on the standing clinics which had always reported inability to cope with the increased applications during the course of the campaign in schools. The response was phenomenal, school medical officers giving twice the number of injections at schools during the short course of the campaign that were given in the regular clinics during the whole year: 22,645 re-inforcing doses were given in schools compared with 930 at clinics. The relief to the clinics was considerable and although the burden was thus shifted to the School Health Service the campaign for that year was brought to a successful conclusion. Many of the volunteers for these "boosting" doses were almost certainly encouraged to submit themselves because

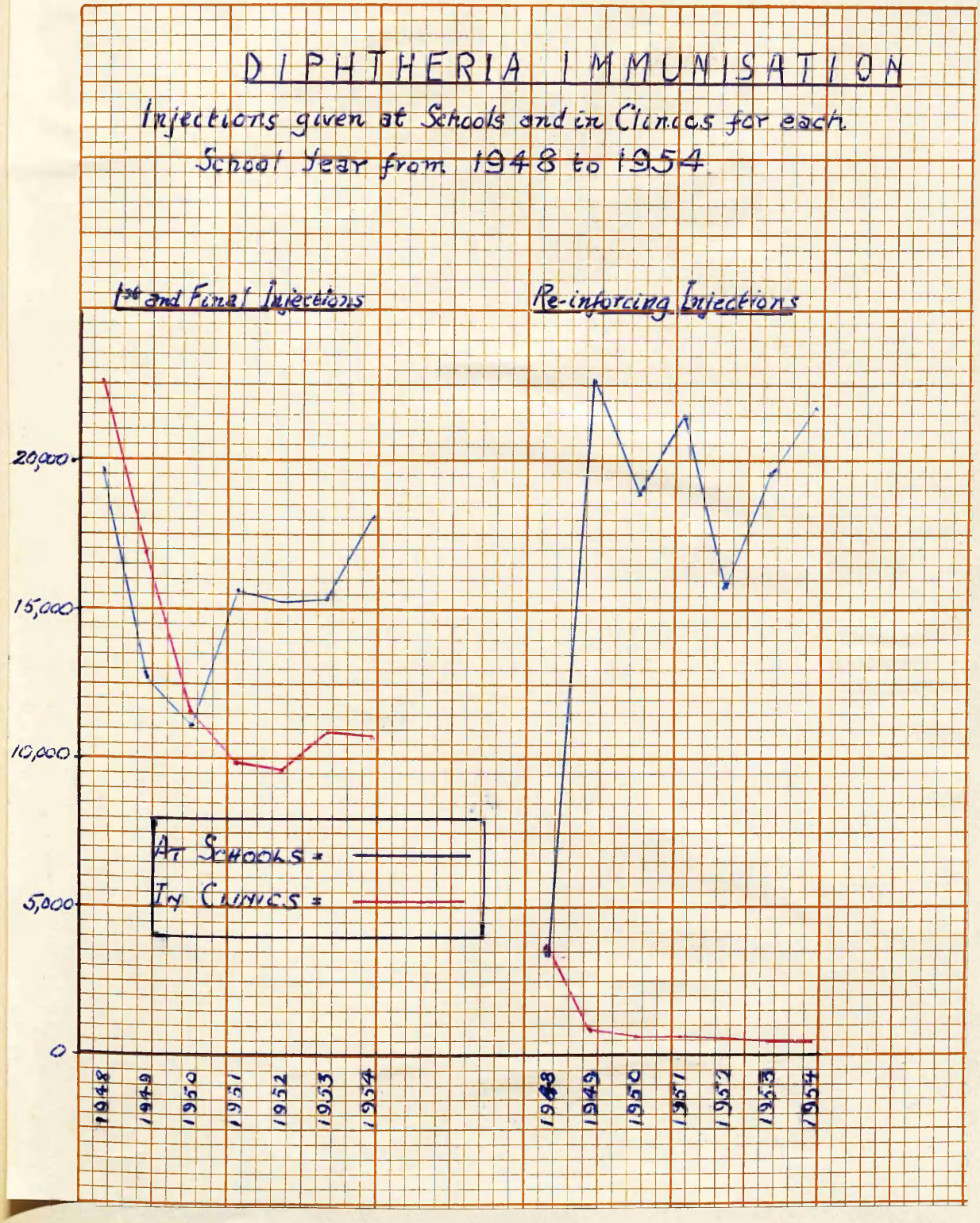
they were being offered inoculation in the familiar environment of school. A similar campaign had been proposed for future years. The worth of an annual short-term campaign appeared to be clearly demonstrated, since the regular clinics, although open all the year round, dealt with comparatively few cases at other times. Measured in terms of life-saving - the number of deaths in Glasgow was reduced from 226 in 1940 to nil in 1950 - the effort was worthwhile.

The continued success of the annual campaign is shown by the figures in the following table where, for the school years 1948 to 1954, the numbers of injections given at schools (as taken from the returns by School Medical Officers) are compared with the numbers given at the ad hoc clinics. Graphs of these figures illustrate the increasing demand for inoculation at school and the falling-off at clinics.

Diphtheria Immunisation Injections given at Schools and at ad hoc Clinics during each of the School Years 1948 to 1954.

| School Year | AT SCHOOLS No. of injections 1st & Final | AT SCHOOLS No. of injections Re-inforcing | IN CLINICS No. of injections 1st & Final | IN CLINICS No. of injections Re-inforcing |
|---|---|---|---|---|
| 1948 | 19,669 | 3,494 | 22,502 | 3,633 |
| 1949 | 12,788 | 22,645 | 16,832 | 930 |
| 1950 | 11,141 | 18,806 | 11,550 | 526 |
| 1951 | 15,535 | 21,440 | 9,853 | 579 |
| 1952 | 15,269 | 15,753 | 9,656 | 528 |
| 1953 | 15,318 | 19,544 | 10,861 | 489 |
| 1954 | 18,094 | 21,765 | 10,771 | 475 |

Figure 2.


DIPHTHERIA IMMUNISATION
Injections given at Schools and in Clinics for each School Year from 1948 to 1954
1st and Final Injections
Re-inforcing Injections
20,000
15,000
10,000
5,000
0
At Schools =
In Clinics =
1948
1949
1950
1951
1952
1953
1954
1948
1949
1950
1951
1952
1953
1954

War Emergency Evacuation Measures.

The 1940 scheme of evacuation aimed at complete evacuation in two days but serious lack of billets in receiving areas caused the removal of school groups to be spread over some months and to remain uncompleted. Larger numbers were sent away in April, 1941 and smaller numbers in the succeeding four months. A system of clearing houses was prepared, 8 schools being selected - 6 for treatment of skin diseases and 2 for uncleanliness of head - these schools being chosen because of their distance from probable targets of military importance and for their suitability in respect of hot water supply. With the slowness of evacuation already mentioned, difficulties of staffing arose and the ultimate failure to evacuate children from the clearing houses to receiving areas when cured often resulted in re-infection where contagious diseases, such as scabies, were involved. These clearing houses were soon closed and any future cases of skin disease were treated at the local school clinic while verminous cases were dealt with as described elsewhere. Dispersal of children in their homes over the City was considered more advantageous than concentration in clearing houses under conditions of night bombing.

By the time the 1941 Session had arrived, the greater number of inspections were of the rapid emergency type for children registered for evacuation as introduced towards the end of Session 1939/40, and took place every fourth week, school medical officers and nurses concentrating upon 52 selected schools while a staff of general practitioners looked after most of the remainder. Nurse inspectresses of the sanitary divisions visited 90 additional

selected schools for cleanliness inspection purposes. In the 142 schools referred to, arrangements aimed at examination of all children twice per annum and the re-examination of unsatisfactory cases each month. Routine medical inspection, was, however, resumed, entrants and thirteen-year-olds being examined mostly, although a few in other age-groups were included.

Appointment of "Cleanliness Inspectresses".

The 1942 Session was one in which conditions in the school health service seemed almost normal after the disturbances of the two previous Sessions - medical staff and facilities were adequate in most respects. There was no "general" evacuation inspection during the Session, the only evacuation inspections being of those proposed for evacuation to hostels, residential schools and to two Government camps; some children home for holiday or other reasons from hostels and residential schools were inspected at school regarding fitness to return to residential centres. In 1942, cleanliness inspectresses (nurses) were appointed to the staff of the School Health Service to examine pupils in the schools where the panel of general practitioners had, in the previous year, made periodical inspections of children registered for evacuation; the services of the doctors were thereupon discontinued. Since that time, cleanliness inspection by nurses of the School Health Service had become part of the annual programme and, linked with the inspections by sanitary nurse inspectresses who also visited the homes if necessary, and the establishment of the hygiene units already described, comprised the main system of cleanliness supervision of school children in the City.

School Meals - Restrictions Removed.

An important piece of legislation was the Education (Scotland) Act, 1942, which removed the restriction on supplying meals to school children - the 1908 Act debarred an Education Authority from supplying meals, chargeable to the Education Fund, unless a child was unable by reason of lack of food to take full advantage of the education provided. The new Act, therefore, enabled Authorities to supply meals to any school child, necessitous or otherwise, without imposing any condition except for recovery of the cost if the parent were able to pay. Provision of clothing was similarly facilitated and the procedure as regards medical treatment was also simplified. By the passing of this Act and because of a diminishing degree of evacuation, the work of feeding school children increased to some extent.

Dental Inspection Re-organisation.

In the same Session (1942), the dental organisation underwent some changes. Routine dental inspection became the inspection of all pupils in a limited number of schools instead of, as formerly, the inspection of only the younger pupils in a large number of schools. Increased percentage of acceptances was thought to be due partly to the new arrangement and partly to the offer of treatment at a cost to parents of 1/- per child. Additional staff was appointed and in most of the dental clinics dental clerkesses (that is, clinic attendants with some ambulance and first-aid training) were appointed in place of fully-trained nurses.

Compulsory Attendance of Handicapped Children.

In Special Schools, attendance at classes for mentally defective children became compulsory in January, 1942 and at classes for physically defective children on 25th May, 1942; at the latter date a certain amount of provision was made for conveyance of the children to and from school.

Mobile Spray Bath Scheme.

From September, 1942, a mobile Emergency Bath Unit supplied by Messrs. Lever Bros. was operated in the school playgrounds of a different school on each of the five school days of the week, providing a weekly spray bath to each child whose parents had given consent. A nurse from the School Health Service, whenever possible, was in attendance with the unit to watch for evidence of skin diseases and the teachers co-operated in marshalling the children for their baths. The value of this scheme, especially to children in the more congested areas, was undoubted, and when the unit was withdrawn on 12th January, 1945 for duty in the liberated areas, the Corporation decided to obtain a spray bath unit of their own. Eventually, one was brought into operation (May, 1949), arrangements being similar to those which obtained with the "Lifebuoy" Unit.

Nursery School Provision.

For some time the increase of war work among mothers had invested the care of pre-school children with a new importance and this situation was met by expansion of the system of nursery schools and day nurseries and by the provision of war-time day nurseries under a special Government grant. By the summer of 1942, there were functioning in the City area 19 nursery schools, 5 day nurseries

and 8 war-time nurseries as well as 3 residential evacuation centres for nursery school children. The numbers of these were increased rapidly in subsequent years until by the summer of 1945 there were 25 nursery schools (including one residential nursery school outwith the City and one private nursery school) and 36 war-time nurseries - a total of 2,894 "places" being available. With the cessation of war, the "war-time" nurseries were discontinued and certain of the premises were taken over by the Education Department as nursery schools and others by the Public Health Department as day nurseries. At the end of June, 1949 there were 36 nursery schools functioning under the Education Department with places for 1,380 children; the Health Department had under its management at the same date 15 day nurseries with about 700 places and a weekly nursery for 40 children whose mothers worked on nightshifts. The nursery schools were under the medical supervision of staffs of the School Health Service (in accordance with the instructions issued annually by the Department of Health for Scotland) and for a time were also visited by Child Welfare Medical Officers.

Extension of Treatment Facilities.

Session 1943 was distinguished by a scheme in which the offer of treatment for tonsils and adenoids was made to children of "non-necessitous" parents at a fee which covered only the cost of actual operation, as difficulty was being experienced by parents in obtaining treatment from other sources. In the same school year, the periodical special emergency inspection of potential evacuees fell into desuetude but cleanliness inspection by nurses increased; as previously stated, scabies was brought under control by December, 1943.

More stable conditions in schools were the feature of the 1944 Session, and the results of medical inspection showed that on the whole there was an improvement in the health of the school children. From a survey of the housing conditions of the children examined, overcrowding was revealed to be less rife except in the one and two-apartment houses. The inspection of children proceeding to harvesting camps was initiated during the year.

Scheme of Residential School Education.

Towards the end of the 1945 Session, a scheme of residential school education was inaugurated by the Education Committee; six being ex-evacuation centres (of which four were to be for physically defective children and two for convalescents), and five which were to be allocated as follows:- three for normal children, one for nursery school children and one for "problem" children. Agreement was also reached in August, 1945 for 40 places to be reserved at the Biggart Memorial Hospital, Prestwick for Glasgow physically defective children in need of nursing care.

Mass Radiography - X-ray Therapy.

In the same year, a scheme was instituted in collaboration with the Mass Miniature Radiography Unit whereby school children mostly of 13 years and upwards were given X-ray examination and any discovered with defects were referred for treatment. Modern X-ray equipment for the treatment of ringworm was installed at one clinic, replacing out-of-date apparatus.

Education (Scotland) Acts, 1945 and 1946.

On 2nd July, 1945 the main provisions of a new Act, the Education (Scotland) Act, 1945, became operative and the work of

the school health service was affected in the following respects:- (1) powers to insist upon systematic inspection of pupils; (2) compulsory powers in connection with the certification of "handicapped" children; (3) the classification of ineducable children as "trainable" and "untrainable"; (4) increased powers for dealing with cleanliness defects; (5) school medical officers obliged to inspect and report on premises, sanitary conditions, etc. of schools; (6) provision of child guidance clinics to be linked up with school medical service. Certain provisions regarding residential and nursery schools (and other regulations regarding visitation of the Remand Home) also affected the work of the Service. On the treatment side, the Act made it the duty of an Education Authority to make such arrangements for securing the provision of free medical and dental treatment to pupils in attendance at schools as were required to secure comprehensive facilities for free treatment being available under the Act or otherwise. These powers might include the provision of hospital accommodation, appliances and medicines for children under medical care outwith the school medical service. The Education (Scotland) Act, 1946 which was passed shortly afterwards consolidated all previous enactments relating to Education in Scotland without materially altering the law.

Conditions in the first Post-War Year.

In the 1945/46 Session war-time conditions had, in the main, passed away; staff members were returning and requisitioned premises were gradually being released; and the return of parents to their homes from the services or from war work brought conditions back more to normal. A remarkable improvement in the dental condition of

children was noted by medical officers - whereas in 1930 only 14.1 per cent. of the five-year-old children had sound teeth, the corresponding percentage in 1946 was 58.7; for children of all ages the improvement was from 15.4 per cent. in 1930 to 60.6 per cent. in 1946. The war-time dietary was probably responsible and the increased average heights and weights appeared to bear out this assumption; the satisfactory averages of the five-year-olds appeared also to indicate improvement in the nutrition of the mothers and gave promise of further advances in the average measurements of older age-groups. (Subsequent years have shown increased percentages for sound teeth and increased averages for heights and weights.) Another important occurrence during the Session was the change whereby school milk became a free issue in August, 1946. Other developments included the resumption of visits by the orthopaedic surgeon to Florence Street school clinic, and, in view of large waiting lists, the acceptance by Stobhill and Southern General Hospitals of a limited number of cases for tonsils and adenoids operation, in addition to the main facilities for such cases at the Western District Hospital. With the decline of scabies, two special centres for treatment of this condition were discontinued.

Introduction of Special Schemes.

On 24th February, 1947 all treatment was provided free of cost to parents, with special arrangements for additions beyond the bare essentials of treatment being provided at parents' cost - e.g. supply of more decorative types of spectacle frames. As from 16th April, 1947 a special scheme was introduced for dealing with heart cases - a cardiologist from Stobhill Hospital attended school clinics and

assessed the condition of individual children as regards education in ordinary or special school and in respect of the type of physical training to be given at school. On 24th February, 1947, 7 occupational centres were opened for children classified as "ineducable but trainable" in terms of the Education (Scotland) Act, 1946 - these children were previously excluded as ineducable in terms of the Mental Deficiency and Lunacy (Scotland) Act, 1913. On 12th May, 1947 a scheme of home tuition was put into effect for physically handicapped children unable to attend school; these children were visited at home by qualified teachers and were kept under medical supervision by the School Health Service. Continued reduction in the incidence of scabies permitted closure of another of the baths centres during the 1947 Session.

Increased Treatment - Inspection of 7-year-olds.

The 1947/48 Session was one of all-round increase in work, the numbers dealt with frequently exceeding those of the "standard" year, 1939. Treatment figures were comparatively high partly on account of the removal of all income restrictions on free treatment and partly because it was possible to increase facilities in some directions; e.g. ear, nose and throat conditions; refractive errors; orthopaedic defects. An innovation was the systematic inspection of vision and hearing of children approximately seven years of age, a group which was to be included in the scheme of inspection annually thereafter at the behest of the Department of Health for Scotland. Nurses undertook the work and the results were justified since many of the children found to have defects, especially of vision, would probably not have been examined until the time of their second routine medical inspection - at 9 or 10 years of age.

(It should be noted that infants undergoing routine medical inspection are not tested for vision owing to their inability to read test types.) The nurses had to make allowance for the children being nervous and shy at inspection owing to the absence of their parents, to their unfamiliarity (at vision test) with their letters (some read phonetically) and to the strangeness of the small letters on the test card compared with the larger letters used in class work and reading books. The hearing test was less complicated but in computing the results due allowance had to be made for the unfamiliarity of the children with the examiners' voices compared with those of their teachers and parents.

Effect of National Health Service Scheme.

The year 1948/49 was one of outstanding importance by reason of the introduction of the National Health Service (Scotland) Act, 1947 which radically changed public health administration. As regards the School Health Service, the transition caused little alteration at first, except in one respect. The hospitals previously under Corporation control and the specialists hitherto employed by arrangement continued to co-operate with the school health service; the only major exception was the school ophthalmic service, which was dislocated for most of the Session.

School Eye Service.

To understand the position, it should be realised that the ophthalmic service for school children had functioned successfully for many years with (1) a team of school medical officers who specialised in refraction work, (2) a consulting oculist to whom all difficult cases were reported, (3) a firm of opticians under contract with the Corporation to supply the spectacles prescribed

by the medical officers, and (4) the secondment of a full-time school attendance officer for the following-up of defaulters; the whole scheme being administered from the office of the School Health Service. The supply of spectacles had always been regularly maintained, even during the difficult war years, but when the National Health Service were introduced in July, 1948 the Corporation's contract with the firm of opticians was not renewed on the advice of the Department of Health for Scotland.

As the duty of the local authority to make arrangements to secure the provision of free medical treatment (including the supply of spectacles) in terms of the Education (Scotland) Act, 1946 was unaltered, many efforts to formulate a scheme retaining the local authority administrative machinery and the services of the experienced school medical officers were made but without success. As time went on the futility of amassing waiting list cases of defective vision became apparent and the numbers of refraction sessions were drastically reduced; the more serious cases were referred to the Hospital organisation which was at that stage severely overtaxed, while the others were advised to apply for spectacles through the Supplementary Ophthalmic Services scheme, under which they were eligible along with other classes of the population, but which was itself experiencing supply difficulties on account of the unforeseen public demand. A suggestion by the Department of Health for Scotland that Education Authorities should consult with the local Hospital Board and continue to make arrangements for sight-testing and the supply of spectacles at <u>local authority expense</u> was rejected by the Corporation following a

report by the Medical Officer of Health pointing out that either (1) the Corporation would have to pay for spectacles which were available without cost through the National Health Service or (2) by referring patients to the Supplementary Ophthalmic Services through their own family doctor, the refraction clinics would have to be closed and the supervision of school children's eyesight would be removed from the sphere of the School Health Service. However, in April, 1949 the Western Regional Hospital Board assumed financial and other responsibility for the work and made a contract with opticians for the supply and repair of spectacles, the School Health Service carrying out the routine refraction work, providing the premises, and arranging for the medical officers to work under the general supervision of the Board's consulting oculist. A shortage in the supply of lenses having been overcome and the contractors' organisation having been brought gradually into efficient working order, the new scheme began to operate smoothly. Unfortunately, a year had been lost and for the twelve months ending July, 1949 only 166 pairs of new spectacles had been supplied by the contractors as compared with 5,577 in the preceding year.

One other possible effect of the National Health Service scheme was expected to be a reduction in attendances at school clinics, since it was probable that many potential cases would seek advice and treatment from the family doctor in preference to attending the school clinic. The returns for the year 1949 had apparently borne out this conjecture to some extent, but the reductions were mostly confined to skin and "general" cases, the figures for other ailments in many instances being just as high as in any previous

year with the exception of 1948, when clinic attendances had been phenomenally high, probably because that was the first complete year in which all income barriers to free treatment had been removed. One interesting fact which emerged was that there was no diminution in the numbers of new minor injury cases reporting for treatment, thus appearing to indicate continued reliance on the school clinic for treatment of the more trivial type of ailment. The new Act had created one minor difficulty - comparative treatment statistics for a number of years from 1949 would be difficult to appraise since children had now the option of obtaining free treatment through the National Health Service or the school health service and there was no organisation for integrating details from all sources.

Other recent Acts dealing with the welfare of children were the Children Act, 1948 and the Education (Scotland) Act, 1949 but neither of these had any direct influence on the work of the school health service.

Re-organisation of the Dental Service.

Routine dental inspection in schools had been proceeding on a slightly larger scale from 1942 onwards following additions to staff, but only a limited number of schools could be inspected and the defects treated within a reasonable space of time. In the 1948 Session, an orthodontic clinic was established and a new system of dental inspection and treatment was put into operation, incorporating a modification of the comprehensive scheme suggested by the Secretary of State. Annual inspection and the offer of treatment to all children in need of it was found to be impracticable, for if all

schools were to be inspected in turn, an interval of seven years would elapse between each inspection. The method decided upon, therefore, was to restrict the inspection and offer of treatment annually to a number of selected schools, the children from these schools being treated in the forenoons while the afternoon sessions in the clinics were reserved for pupils from all the other schools. An experimental emergency clinic for the treatment of "toothache" cases without previous appointment was instituted in May, 1949 and functioned every afternoon in order to relieve the pressure on the ordinary clinics. An X-ray Unit was established in April, 1949 to make available to dental officers an immediate radiographic diagnosis. The orthodontic unit was expanded in the same year and, in addition, arrangements had been made on 1st November, 1948 for the Glasgow Dental Hospital to deal with some of those on the waiting list for orthodontic treatment.

Summary.

Despite the disorganisation - sometimes even the total disruption - of the war years it is possible to view with some satisfaction the achievements of the immediate post-war period. In 1949, for instance, it was found that the average height and weight measurements of the children were higher than ever before, while the returns of routine medical inspection showed that all listed ailments, with the exception of uncleanliness, had declined to such an extent that the percentage of children with no discoverable defect (40.2 per cent.) was the highest recorded since this basis of classification was adopted in 1939. It was significant also, that the less remediable defects were fewer than ever before.

## CHAPTER VII.

## PERIOD 1949/50 - 1953/54.

This, the final period in our survey, was mainly one of expansion and re-organisation. It also saw an extension of the co-operation with other agencies so necessary to integrate the efforts of all concerned with the health and welfare of the school child.

On the inspection side, the volume of the work had been steadily increasing - particularly "re-inspections" (i.e. children previously found to have an ailment) and "leaving interview" (pupils seen immediately before leaving school) and examinations prior to admission to residential schools which had shown a phenomenal increase during the period owing to additional residential school provision. As regards treatment, increased facilities (e.g. provision of additional hospital beds for tonsil/adenoid operation cases) and additional staff enabled more cases to be dealt with than ever before. The scope of the Service was also widened by the appointment of medical auxiliaries (speech therapists, physiotherapists, and audiometricians).

Some of the new developments introduced during the period are briefly described below:-

### Nursery School Supervision.

From the beginning of the Session 1949/50, the entire responsibility for the medical inspection and supervision of children attending nursery schools was assumed by the School Health Service. Each nursery school was visited weekly either by a School Medical

Officer or by a school nurse - the doctor visiting fortnightly and the nurse at other times. (In the 1953/54 Session the doctor's visit was reduced to one every four weeks.) On each visit to the nursery school, the School Medical Officer examined children as "routines", "non-routines" or "abnormals" and the nurse on her weekly visitation gave advice if required. Each nursery school was also encouraged to get into touch with the nearest school clinic for advice on any matter concerned with the health of the children under its care. With regard to routine medical inspection, the aim was to have a complete medical record of every child who had attended a nursery school and this card was passed on to the primary school in which the infant was enrolled, thus ensuring the continuity essential for adequate medical supervision throughout a child's school life.

Pre-vocational Students and School Meals' Employees.

Also initiated at the beginning of Session 1949/50 was the medical examination of students embarking on pre-vocational courses for nursing, commerce, engineering and building; those enrolled for the pre-nursing courses were, in addition, given X-ray examination. Another scheme introduced during the same period was the medical supervision of kitchen staffs who handled food supplied for consumption by school children; both new and old employees were medically examined and X-rayed. Now, all applicants for posts in the various school kitchens are examined before appointment and all employees are re-examined annually.

Ascertainment of Defective Hearing Cases.

Another innovation was the Audiometric Survey of pupils

attending Glasgow schools and the otological examination of those who failed in the hearing tests. The first experimental survey had been undertaken during the 1948/49 Session, children aged 10 years (subsequently 9-year-olds) being tested by the "sweep" method at schools and, if necessary, by pure-tone audiometer at the clinic subsequently. Arrangements were also made with the Hospital Board for the services of aurists at school clinics. In the 1949/50 Session, the first of the cases were examined by specialists but it early became apparent that the complete success of the scheme was being jeopardised owing to the insufficient number of aurists, the failure of patients to attend and the prolonged treatment necessary in many instances; all of which led to the accumulation of a considerable waiting list of cases. In 1950/51 the scheme was re-organised, two trained audiometricians being appointed and the services of an experienced School Medical Officer utilised to "screen" the cases, leaving the more serious to be seen by the specialist. Treatment was given at clinic or in hospital as required and the children were classified according to the degree of deafness and the educational facilities available to them.

Vaccination with B.C.G.

Following a tuberculin survey of older school children, undertaken early in 1952, it was decided to institute an annual B.C.G. campaign. Parents of thirteen-year-olds (and upwards) were circularised and invited to give consent to the B.C.G. vaccination. Children were Mantoux-tested, and those who showed a negative reaction were subsequently vaccinated.

Results of the campaign in each of the years 1953 and 1954

were as follows:-

| | 1954 | 1953 |
|---|---|---|
| Total schools visited | 114 | 109 |
| Total forms issued | 20,995 | 16,380 |
| Parental consents granted | 15,695 | 11,597 |
| Total absent | 705 | 391 |
| Total number tested | 14,990 | 11,206 |

Mantoux Results.

| | 1954 | | | 1953 | | |
|---|---|---|---|---|---|---|
| | Boys | Girls | Total | Boys | Girls | Total |
| Positive | 2,938 | 2,994 | 5,932 | 2,167 | 2,391 | 4,558 |
| Negative | 4,185 | 4,874 | 9,059 | 3,018 | 3,630 | 6,648 |

Vaccinations.

| 1954 | | | 1953 | | |
|---|---|---|---|---|---|
| Boys | Girls | Total | Boys | Girls | Total |
| 4,162 | 4,847 | 9,009 | 3,009 | 3,623 | 6,632 |

Asthma Clinic.

One of the School Medical Officers (Dr. Gemmell) investigated cases of Asthma and various allergic conditions. Of the first hundred cases investigated, forty-six gave positive reactions to allergy skin tests and were treated by one or more courses of desensitising injections. From the results obtained, allergy appeared to be an important factor in the etiology of Asthma in children and since it seemed probable that a fair measure of success could be obtained by treatment with the appropriate desensitising solutions, an "asthma" clinic was instituted.

The following are the tabulated results of the first hundred cases investigated.

Skin Test Reaction.

| Number of cases investigated. | Positive reaction to skin test. | No significant reaction. |
|---|---|---|
| 100 | 46 | 54 |

Desensitising Injections.

| Total cases | Cured | Marked improvement | Little or no improvement. | Irregular attendance | Follow-up reports not available |
|---|---|---|---|---|---|
| 46 | 13 | 15 | 6 | 4 | 8 |

Placing of Young People in Employment.

With the establishment of a Youth Employment Service (in 1951) a system was evolved whereby information regarding the health of children about to leave school was made available to the new Service. Direct consultation between the School Medical Officer and the Youth Employment Officer was initiated in the case of handicapped children who were being finally "passed-out". A special arrangement was made for heart cases to be seen by the Heart Specialist prior to leaving school. Since 1951 Professor Ferguson of Glasgow University has co-operated in the placement of handicapped children in suitable employment.

Increased Treatment Facilities.

Expansion of treatment facilities was made possible by the opening of new clinics. The first of these, an orthopaedic clinic at Avenuepark Street was opened in October, 1949 to replace the Ashley Street Centre previously in use; facilities at the new centre

included provision for treating plaster cases for the first time in a Glasgow school clinic. Another orthopaedic clinic was opened at Harriet Street (October, 1951) and two minor ailment clinics (at Leithland Road and Berryknowes Road) were inaugurated (September, 1952) in new housing schemes.

Specialist facilities at the Hearing Aid Clinics of two hospitals were made available to alleviate the shortage of aurists attending school clinics.

Speech therapy was extended to children in schools for the handicapped, following a survey undertaken by one of the therapists which revealed that 282 children out of the 660 tested suffered from some form of speech defect. A survey of children with speech defects in day nurseries and nursery schools was also undertaken with a view to introducing a scheme for such children in future. Of 800 children tested in nursery schools, 608 had speech defects and out of 464 tested in day nurseries, 228 were found similarly handicapped; many of the speech defects recorded were of a minor nature.

The dental service, especially as regards orthodontic treatment, had shown some expansion. In 1951 a dental general anaesthetic clinic was established and specialist surgery and gold-filling were made available in the same year. Increasing use was also being made of the dental X-ray service.

Of recent years the scope and interest of the service have continued to widen.

Housing Conditions.

From information obtained by School Medical Officers during the 1950/51 Session it was possible to give details relating to the housing conditions of the children seen at Routine Medical Inspection.

This information, when compared with that obtained in previous years, showed that with progress in re-housing, the population was moving steadily from the smaller to the larger house. Paradoxically, one-apartment houses, although becoming fewer in number, were now occupied by more persons per room, on an average, in the year 1951 than in either 1944 or 1936 - the two earlier years for which relative information was available. Among the other facts revealed by this study of the relationship between health and housing were (1) the average heights and weights of children examined tended to rise as the number of apartments in the house increased and to fall as the number of inmates increased and (2) that as the number of apartments increased or the degree of overcrowding decreased, comparative freedom from defect tended to increase.

Outbreak of Smallpox.

An outbreak of Smallpox in the spring of 1950 caused some interference with the routine for a short time. About 1,300 persons were vaccinated by School Medical Officers in one school, and six centres (five of them in School Health Service premises) were opened to provide vaccination to all who presented themselves, children and upwards. During the period 27th March to 21st April, when facilities for public vaccination were available, of the 176,000 persons dealt with, 84,000 (48 per cent.) were vaccinated by School Medical Officers.

Exhibition of Educational Activities.

The School Health Service, on the invitation of the Education Department, took part in an Exhibition, which was held in the Palace of Art from 27th April to 9th May, 1953. Contributions from the School Health Service included the display of factual information

regarding the health of Glasgow school children, the facilities provided for examination and treatment, the necessity for diphtheria immunisation and the successful measures adopted against an outbreak of scabies. These matters were illustrated by means of charts and photographs. Over 50,000 persons attended the Exhibition, which therefore provided a good opportunity for health propaganda.

The Present Scope of the Work of the School Health Service.

This can be judged by the following summary of work undertaken by the service during the year 1954.

Inspection.

| | |
|---|---|
| Systematic Examinations. | |
| Ordinary Schools | 51,895 |
| Special Schools | 1,284 |
| Other Examinations. | |
| In Schools | 67,409 |
| In Clinics mainly | 35,712 |
| Cleanliness Examinations. | 167,218 |
| Dental Inspections. | 45,305 |
| | 368,823 |

Treatment.

| | Cases | Attendances |
|---|---|---|
| External Ear Disease (including Aurists' examinations) | 5,857 | 43,862 |
| External Eye Disease | 2,115 | 16,570 |
| Skin Disease | 17,875 | 121,276 |
| Defective Vision: | | |
| Clinic Treatment | 9,769 | 10,872 |
| Spectacles supplied | 5,537 | 7,284 |
| Ear, Nose and Throat Operations | 1,599 | 4,890 |
| Orthopaedic Conditions | 2,196 | 18,674 |
| Other Diseases: | | |
| General | 6,031 | 17,541 |
| Supply of Medicines | 2,487 | 15,865 |
| Artificial Light | 1,703 | 22,715 |
| Cardiac Cases | 202 | 367 |
| Dental | 22,457 | 62,762 |
| Remand Home | 328 | 328 |
| Defective Speech | 1,084 | 9,069 |
| Totals. | 79,240 | 352,075 |

## CHAPTER VIII.

## PRESENT DAY ADMINISTRATION AND ORGANISATION OF THE SCHOOL HEALTH SERVICE.

### ADMINISTRATION.

The school health service, as part of the Health and Welfare Department, is administered by the Health and Welfare Committee of the Corporation. Under the terms, however, of the Revised Scheme of Administrative Arrangements (dated 27th May, 1948) made under the provisions of the Local Government (Scotland) Act, 1929 (as amended by the Education (Scotland) Act, 1945) the Committees on Education and Health are enjoined to consult and to co-operate in regard to school health service matters. It is further provided as follows:-

"(1) The Medical Officer of Health or other appropriate officers shall attend the meetings of the Education Committee and of its sub-committees at which matters affecting the school health service are to be considered for the purpose of affording such information and advice as may be required.

(2) It shall be the duty of the Medical Officer of Health and the Director of Education, with the approval of the committees concerned, to make arrangements for co-operation between the staff of the Public Health Department and the teachers.

(3) The Education Committee shall make such arrangements as are necessary for the provision of all reasonable facilities for the administration of the school health

service in schools ..... under the management of the Corporation."

Staff. - The Chief Administrative School Medical Officer is also the Medical Officer of Health and the Chief Executive School Medical Officer is the Principal Medical Officer (School Health Service). A list of the staff employed on school health service work is as follows:-

(a) Whole-time.

1 Principal Medical Officer; 2 Assistant Principal Medical Officers (1 for Child Guidance Work); 20 School Medical Officers; 1 Chief Dental Officer; 17 School Dental Officers; 1 Superintendent School Nurse; 81 School Nurses (including 7 employed as Cleanliness Inspectresses); 8 Speech Therapists; 2 Audiometricians; 10 Physiotherapists (including 6 Physical Training Teachers seconded to orthopaedic clinics); 1 Occupational Therapist; 1 Administrative Officer; 37 Clerks; 16 Dental Attendants; 1 Default Officer.

(b) Part-time.

18 Consultants; 1 Dentist; 1 Dental Attendant.

Local doctors and dentists undertake emergency duties at the residential schools and at Mossbank Approved School in accordance with separate arrangements made with the local Executive Councils.

Other members of the staff primarily engaged in the dental treatment of ante-natal patients and nursing mothers are detailed below. The whole-time staff devote a small proportion of their time to school dental work.

Ante-Natal Dental Staff.

Whole-time.

1 Dental Officer; 1 Nurse; 5 Workshop Technicians.

Part-time.

1 Dental Officer; (and the Chief Dental Officer also gives part-time to ante-natal work).

Schools and Pupils. - The number of schools under the management of the Corporation at 30th June 1955, and under medical supervision was as follows:-

Primary, 177; Junior Secondary, 47; Senior Secondary (including 2 "Comprehensive" schools), 31; Nursery, 40; Schools for Handicapped, 24; Residential, 12; Approved, 1; Agricultural, 1; Gardening, 1; Hospital, 6 - total 340. There are also 10 Occupational Centres (for ineducable but trainable children) housed in ordinary schools. In addition, 4 schools are under receipt of grant and under medical inspection although not under management of the Corporation.

78 schools and 11 annexes were of open-air design - 80 wholly and 9 partly so - comprising 80 buildings for ordinary, 6 for handicapped and 3 for nursery school children.

The average number of pupils on the register of all schools during the year ended 30th June, 1955 was 176,688 and the average attendance was 89.5 per cent. in ordinary schools and 82.2 per cent. in schools for the handicapped.

ORGANISATION.

System and Extent of Medical Inspection and Treatment.

For convenient operation of the scheme, a school clinic serves

a group of schools in each district of the city. To each clinic and its attendant group of schools, one or two (depending on the size of the area) school medical officers are attached and made responsible, so far as is possible, for medical inspection, treatment and supervision of the pupils in the specific area. Part-time consultants seconded by the Hospital Board organisation work at central clinics. Pupils in residential and approved schools are given emergency treatment by local medical officers and dentists by arrangement with the various Executive Councils.

Inspection.

The scheme of inspection is conducted broadly on the lines suggested by the Department of Health for Scotland in a circular letter issued at the beginning of August each year. For the purpose of the systematic examinations, medical officers visit schools according to a fixed time-table drawn up prior to the commencement of the school year. Parents are given three days' notice by the hands of the children on the occasion of each routine medical inspection. A medical record card for each child is kept in the school and a Hollerith card is made out for statistical purposes.

The scheme of inspection in Session 1954-55 was as follows:-

Ordinary Schools. - (1) "Routine" Medical Inspection.

Pupils in the Infant Department who had not previously been subjected to detailed routine inspection; and those born in each of the years, 1941, 1945, 1938 and 1947 (vision and hearing only).

The first four groups were usually presented in the order

given and, on the whole, the inspection of each routine age-group was completed throughout the City before proceeding to the next group. Examination of the children born in 1947 was undertaken by nurses who made their own arrangements with head teachers.

(2) "Non-routine" Inspection.

(a) Pupils outwith the groups already named who were specially presented at any inspection on account of disease or defect observed by teacher.

(b) Pupils approaching "fixed dates" for leaving school who were presented for "leaving interview".

(3) Inspection of "Abnormals".

Pupils found at previous inspection to be suffering from disease or defect, who were presented for re-examination at intervals determined by the school medical officer.

Schools for the Handicapped. - Routine medical inspection was also provided in schools and classes for physically and mentally handicapped children. The groups examined were: "entrants" (which included children of any age who had not previously been examined), "intermediates", and "leavers" (pupils approaching 15 or 16 years of age). In addition, physically handicapped pupils were specially examined twice annually with a view to fitness for ordinary school, on approaching 12 years of age as to fitness for secondary education and at intervals before leaving with regard to fitness to enter employment. Mentally handicapped pupils were examined biennially by the visiting psychiatrist for purposes of re-assessment, on approaching school leaving age and at intervals as required.

Nursery Schools. - A school medical officer visited each school once in four weeks to examine any children presented to her as "routines", "non-routines", or "abnormals"; each child was expected to have one only routine medical inspection during the period of nursery school life.

Other Inspections. - Arrangements were also made throughout the Session for Routine Dental Inspection by dental officers of pupils in selected schools, for Cleanliness Inspection by nurses, Diphtheria Immunisation (including the annual campaign in schools), Mass Radiography of pupils (generally those 14 years of age and over) when the Unit was available, B.C.G. Vaccination (13 year-olds and over), and the General Inspection of schools (under Section 20 (4) of the Education (Scotland) Act, 1946) by medical officers.

Treatment.

Children found or suspected to have a defect are reported by school medical officers, nurses, teachers, attendance officers, parents and others and, unless in emergency, such cases are summoned by letter to the local school clinic. Signed application by the parent is necessary, but treatment is provided free of charge.

With the recent opening of a new clinic in the Bridgeton area and another in the new housing scheme at Drumchapel, there are now (July, 1955) 21 treatment centres, 18 of which have facilities for the treatment of minor ailments, 12 also have refraction facilities, 15 dental, 4 orthopaedic, 3 U.V.R.; there are also special facilities at one clinic for skin treatment by X-ray and arrangements at 2 clinics for providing special bath treatment for scabies

cases. A dispensing optician attends at 6 centres on certain days to fit and check spectacles supplied under the School Eye Service scheme. Of the 21 centres, 10 share premises with the Child Welfare section (joint clinics) and 5 are occupied solely by the School Health Service. The remainder (6) are housed in school buildings, 3 having a separate entrance.

In addition to the above, children with speech defects are treated by qualified speech therapists at schools or in clinics, and maladjusted children are treated in child guidance clinics or in a residential school. The Corporation has also a number of residential and boarding schools to which handicapped children are sent for varying periods.

Special hospital treatment is also provided free of charge in co-operation with the Hospital Board organisation and consultants for ear, nose and throat, orthopaedic, heart, ophthalmic, and skin conditions are seconded to the School Health Service, attending the school clinics regularly. An anaesthetist also attends a dental clinic on one session per week. Beds in three hospitals are set aside for tonsil and adenoid cases and two hospitals admit school children requiring other ear, nose and throat operations. Hospital accommodation is also available for school children with hearing or orthopaedic defects and X-ray facilities for ear, nose and throat cases are provided in two other hospitals. By special arrangement with the hearing-aid clinic attached to yet another hospital, children with hearing defects are tested, provided with hearing-aids if necessary and followed up to ascertain progress in the use of the instruments. The staff of this clinic also help

to supplement the few aurists available to the School Health Service by examining ear, nose and throat cases (mostly old cases due for specialist re-examination after protracted treatment) on their own premises and advising as to treatment.

System and Extent of Dental Inspection and Treatment.

Dental officers are attached to clinics, each of which serves a group of schools in the district. A number of selected schools are visited for the purpose of Routine Dental Inspection and children in these schools found to have dental defect are offered treatment at a school clinic. Where a clinic is operating full-time, two whole days per week are usually set aside for children attending schools which are not on the list for routine dental inspection and the remaining days are available for the routine cases. Emergency "toothache" cases are treated at local dental clinics between 4 and 5 p.m. daily.

Orthodontic treatment is available for school children and at present one dentist is employed full-time and another gives a part of his time to this work.

A dental X-ray unit is available for making immediate radiographic diagnosis on request by individual dentists; a general anaesthetic clinic functions each Saturday morning where cases previously selected by the staff are treated; facilities for surgery, gold fillings and for artificial dentures where considered necessary are provided to school children, a staff of dental technicians being employed for this purpose.

School Nursing and Arrangements for Following-Up.

A nurse accompanies each school medical officer at routine

inspection in schools and assists in the examination of pupils as required, drawing attention to any defects observed, preparing and despatching notes and returns and visiting important cases, if necessary, regarding home conditions or in connection with parental consent to urgent treatment.

Each school clinic has a sister-in-charge and additional nurses (the number depending on the volume of work) who assist with the treatment under the direction of the school medical officers and consultants. The nurses also visit the homes of children to obtain their attendance at clinics or in connection with various surveys.

In several schools for the handicapped a nurse is in attendance full-time mainly for the treatment and care of the physically handicapped children, thus obviating the need for these children to attend school clinics. Nurses attend part-time at other special schools for the same purpose.

A staff of nurses is employed partly on the cleanliness inspection of children in a number of schools and partly on the testing of visual acuity and hearing of children aged approximately 7 years.

Following-up is principally by means of postal communication, the co-operative efforts of teachers and the visitation of homes by nurses, attendance officers and, in difficult cases, by special officers of the School Welfare Section.

## Co-ordination with the Public Health Service and with other Departments.

### Health and Welfare Department.

Information regarding cases of infectious disease and contacts

is intimated to the School Health Service by the Divisional organisations. Particulars of children excluded from school on account of infectious disease and those "cleared" are forwarded by the Service to the appropriate section of the Education Department.

Several clinics are used jointly by the Maternity and Child Welfare Section and by the School Health Service; co-ordination is thus facilitated by having two branches of the Corporation Health Service in the same building. Pre-school children, including those attending day nurseries, are frequently referred by the Child Welfare medical officers to the various school clinics for advice and treatment.

The nurse inspectresses, attached to the various Sanitary Divisions, visit a selected number of schools for the purpose of inspecting children regarding cleanliness; the homes of persistent offenders are also visited.

There are a number of ad hoc Diphtheria Immunisation clinics available to children of school age and under; assistance is given in some of these clinics by members of the School Health Service staff. In the spring or each year a "drive" in the schools is organised, routine medical inspection being suspended for a time; all children attending primary schools are offered immunisation including "boosting" doses where these are considered necessary.

Close co-ordination is maintained with the Mental Services Department in the ascertainment and certification of mental defectives. For this purpose members of the School Health Service medical staff attend at 20 Cochrane Street every second Saturday morning throughout the year. They examine and, if necessary,

certify under the Mental Deficiency Acts, the following groups:

(1) Children under the age of 5 years whose parents desire institutional treatment to be provided.

(2) Children from the age of 5 to 16 years reported under Section 56 of the Education (Scotland) Act, 1946, as being incapable of receiving instruction in a special school.

(3) School leavers at the age of 16 years who are reported under Section 57 of the Act as requiring special care and protection after leaving school.

(4) Adults who require, by reason of mental deficiency, some form of supervision either under guardianship or in an institution.

Dental treatment is also available (a) for pre-school children at the ordinary school dental clinics to which they are usually referred by school or child welfare medical officers; (b) at special clinics for ante-natal and nursing mothers up to 9 months after confinement.

B.C.G. vaccination is offered, in the course of an annual campaign, to school children of 13 years and over - staffs of the School Health Service and the Divisions collaborating in the work.

The Miniature Radiography Section at Cochrane Street undertakes the examination of recruits for the School Health Service. It also co-operates in connection with the examination of school teachers under the new Sick Pay regulations whereby special provision is made for teachers suffering from respiratory tuberculosis. The scheme commenced 16th November, 1954 and by 31st May, 1955 a

total of 5,006 (1,962 males and 3,044 females) teachers had been X-rayed; of these 100 men and 116 women were recalled for large film to be taken, with the result shown.

| Diagnosis in Recalls. | Males | Females | Totals |
|---|---|---|---|
| Active pulmonary tuberculosis | 7 | 7 | 14 |
| Inactive pulmonary tuberculosis (including calcified or fibrotic conditions) | 49 | 51 | 100 |
| Pleural thickening or adhesions | 9 | 16 | 25 |
| Cardiac hypertrophy | - | 9 | 9 |
| Bone defects (ribs or spine) | 1 | 4 | 5 |
| Neoplasm | 1 | 1 | 2 |
| No apparent defect | 33 | 28 | 61 |
| Totals | 100 | 116 | 216 |

Children's Department.

Close co-operation has been maintained with the Corporation Children's Department since it was established in August, 1948. At the request of the Children's Officer, children under his supervision are examined regarding their mental condition and appropriate action advised. Medical treatment at school clinics is also given on request, including the provision of spectacles.

The Remand Home is under medical supervision by the staff of the School Health Service, school medical officers visiting the Home on a weekly rota and being on call at any time of the day or night.

Education Department.

The School Health Service works closely with all branches of the Education Department in connection with various schemes,

details of some of which are given below.

Nursery Schools are under the medical supervision of the School Health Service. School medical officers visit monthly for the purpose of Routine Medical Inspection and a nurse calls each week when the school medical officer is not due to visit. The school clinics are available for the treatment of children with defects.

Pupils approved for a stay in residential schools are examined twice prior to admission and the schools are visited periodically by school medical officers in order to assess the fitness of the children for return to schools in Glasgow.

Children are examined twice before proceeding on holiday abroad or to holiday and residential camps. During the summer, the Principal Medical Officer visits several of the camps and reports on the hygiene and other living conditions.

Children volunteering for potato harvesting are examined twice before proceeding to the camps. The Principal Medical Officer visits most of these camps in company with Education Committee members and Education Department officials.

Employees in school meals kitchens are medically examined annually and applicants for posts have to undergo medical examination (including X-ray) to ascertain their fitness to undertake the employment offered. About 900 persons are notified to attend for examination in the course of each year.

Other adult employees of the Education Department are, on occasion referred to the School Health Service for medical examination and advice as to their fitness to resume their occupation;

the number of such cases have lately increased following the introduction of the special provisions in the Sick Pay Regulations relating to the prevention of tuberculosis. In addition, teachers and other Education Department employees who have been in contact with cases of infectious disease in their homes are instructed to report in person to the School Health Service for guidance as to date of return to duty.

Special officers of the school attendance and school welfare sections investigate cases of neglect in connection with all the minor ailment clinics and report back to the School Health Service. A special officer is attached to the School Health Service for following-up children for whom spectacles have been prescribed at the school clinics.

Requests for advice regarding children who have been absent from school for some time are frequently received from the school attendance department. The action taken will depend on the circumstances and may include communication with the hospital board organisation, request to the parent to take the child to a school clinic, visitation of the home by a school medical officer, or writing the private doctor in attendance to ascertain if he has any objection to a school medical officer examining the child regarding fitness to resume school and in the same letter pointing out that special treatment is available through the School Health Service (e.g., artificial light therapy, residential schooling, etc.).

Other special examinations made by school medical officers are - applicants for employment licences under the Corporation

Bye-laws, persistent truants appearing before school management committees and certain juvenile court cases.

Students attending pre-vocational courses for nursing, nursery nursing, commerce, building and engineering are medically examined. Examination of the nurses and nursery nurses includes X-ray examination. Candidates for printers' apprenticeships are also X-rayed and medically examined.

Pupils recommended for home tuition are examined by school medical officers before inclusion in the scheme, and at intervals thereafter. The suitability for occupational treatment of ineducable children is also reported.

During a week in the month of June, a doctor and a nurse are in attendance each day at the entertainment to handicapped children at Loch Lomond (Balloch Park).

Physical training teachers holding physiotherapy qualifications are employed at orthopaedic clinics along with qualified physiotherapists.

Close co-operation with the youth employment service has existed since its inception (February, 1951), information being forwarded regarding the health of children about to leave school, especially as to their unsuitability for employment in certain occupations. In the case of handicapped pupils, moreover, a permanent arrangement has been adopted whereby after the final "passing-out" examination, the school medical officer consults with the local youth employment officer and discusses in the light of the physical disability of each pupil, the most suitable type of available employment for each. More recently the School Health

Service has co-operated with the youth employment service and the department of public health and social medicine of Glasgow University in a scheme to ensure the greater well-being and speedier settlement in industry of physically handicapped boys and girls after they leave school. The heart specialist seconded to school clinics is also present when children, physically handicapped by reason of heart conditions, are being interviewed as regards placing in employment.

Co-operation with Other Outside Agencies.

Department of Health for Scotland.

From time to time requests are received for information on various matters affecting the health of school children. Reports are also required particularly in connection with the various special committees of the Department. The annual report on the medical inspection and treatment of school children in the Glasgow area is sent to the Department as soon as it is completed.

University of Glasgow.

Each year the School Health Service co-operates in the arrangement of the curriculum for the students attending classes for the Diploma in Public Health. Lectures are also given to the students who take the post-graduate course in mental deficiency for medical officers, who also gain their practical experience in the child guidance clinics, special schools and occupational centres. The Service also co-operates from time to time in connection with various surveys and a school nurse is seconded each year to the University, in connection with an investigation into the social adaptation of families following re-housing.

Western Regional Hospital Board.

Specialists are allocated by the Board to work part-time at school clinics for cardiac, orthopaedic, ear, nose and throat, skin and defective vision cases. An anaesthetist also attends a special clinic where children are given dental treatment under a general anaesthetic.

The mass radiography unit undertakes the examination of school children at intervals when the unit is available. Pupils of 14 years and over are X-rayed and the School Health Service makes all arrangements with the schools including the transportation of the children to and from the centre. School teachers are encouraged to submit themselves for X-ray examination at the same time.

Infectious disease hospitals refer school children who are post-pneumonia cases to the School Health Service clinics for examination and after-care. A list of the infectious disease cases discharged from these hospitals is also forwarded to the School Health Service which notifies individual schools when the children may resume.

Almoners of the various Glasgow institutions correspond frequently regarding the health and welfare of school children and submit many recommendations for the admission of such children to Corporation holiday homes.

It is sometimes necessary to refer school children direct to hospitals for treatment. Approximately 300 cases are referred annually in this way, the majority suffering from minor injuries.

Arrangements with Biggart Hospital Home, Prestwick, are still functioning and 40 beds for physically handicapped children in

need of nursing care have been permanently allocated.

Co-operation is maintained with the Glasgow Dental Hospital for the attendance there of children requiring orthodontic treatment, such pupils being marked present at school as in the case of those attending school clinics.

National Health Service Executive Council.

A list of applicants for the supply of spectacles as prescribed under the school eye service scheme is sent to the Executive Council to obviate the possible duplication of supply.

Private medical practitioners make use of the School Health Service for children requiring special treatment at school clinics in particular cases. As previously mentioned, also, these doctors are communicated with regarding children who have been absent from school for some time and are invited to make use of the special facilities provided under the auspices of the Service.

School children attending the principal foot clinics are marked present as in the case of children attending private dentists, etc., to which references have already been made.

Voluntary Organisations.

A residential school at Westerlea, near Edinburgh, is available for the treatment of cerebral palsy cases under the auspices of the Scottish Council for the Care of Spastics. Glasgow has been allotted a total of six beds.

At the request of the University Settlement, children are medically examined prior to going to the Children's Village, Humbie.

The School Health Service co-operates with a joint committee

of the Institute of Child Health and Society of Medical Officers of Health and the Population Investigation Committee in a national survey of the health and development of children born in a certain week in March, 1946. School nurses visit the homes and the children are examined by school medical officers from time to time as requested.

Co-operation with Teachers and Parents.

The teaching staffs always give their willing co-operation throughout the year, lending invaluable aid not only in connection with the usual work of medical supervision and treatment but in facilitating the operation of other schemes relating to the health and well-being of the pupils under their charge. Special reference may be made to the diphtheria immunisation campaign, the success of which is due largely to the zeal and enthusiasm of the teachers concerned by whose efforts the children are encouraged to participate in the scheme.

There is a tendency for fewer parents to attend at the routine inspection of their children but the percentage of attendance with entrants remains comparatively high. The importance of having parents present at the medical examination of their children cannot be over-emphasized as it facilitates the work of the medical officer who is enabled to obtain at first hand particulars of the medical history and discuss with parents matters concerned with the health of their children.

Lectures bearing on the health of the school child are usually given during the year by school medical officers to parents', teachers' and other organisations.

## CHAPTER IX.

## THE CONDITION OF SCHOOL CHILDREN: CHANGES OVER 40 YEARS.

The physical condition of school children can be judged from analysis of the results of medical inspection and the average measurements derived from it.

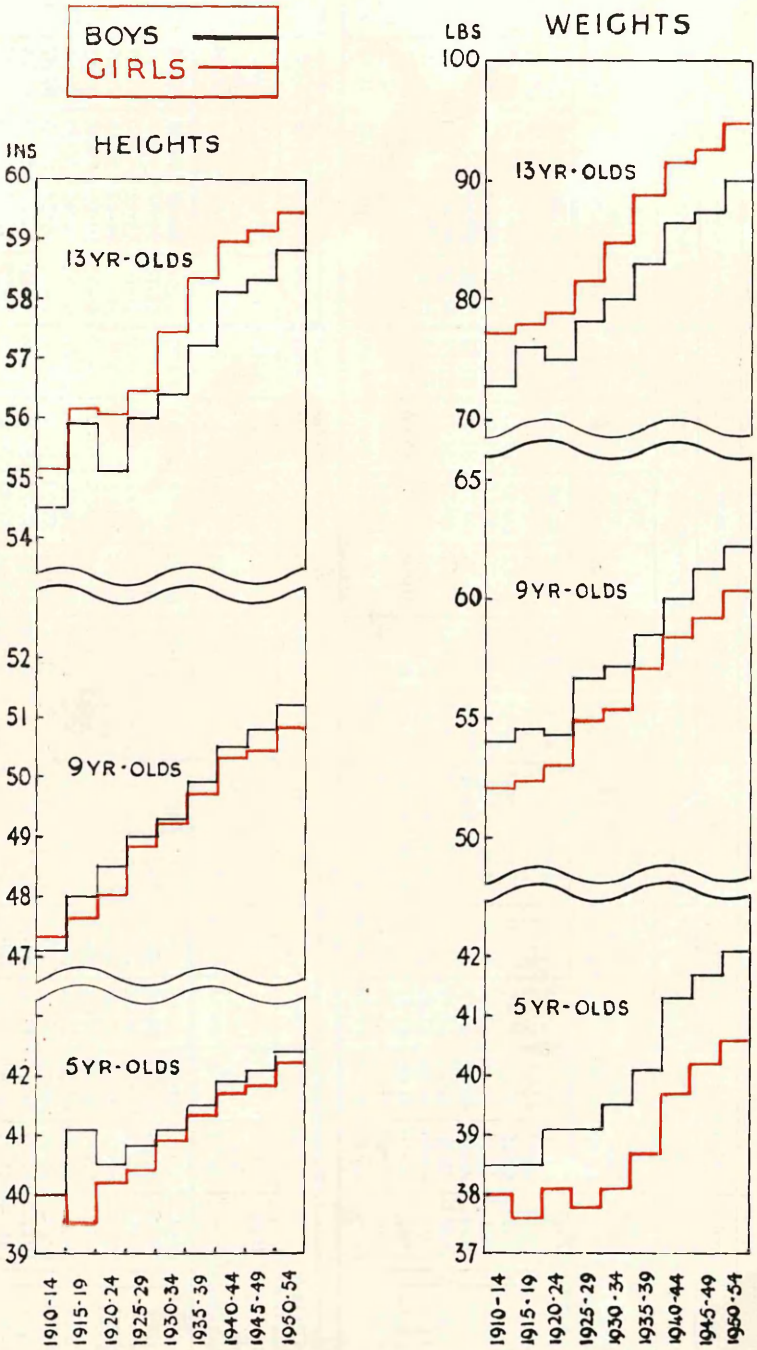
Height and Weight. - A useful guide in assessing the general health condition of school children is provided by the records of average measurements of similar age-groups of pupils when compared over a long period. In the following table, the progressive increase since 1910 in the average heights and weights of pupils in three age-groups is clearly shown -

Average Heights and Weights for Four Decennial Periods and a Quinquennium from 1910 - 1954.

| | HEIGHTS IN INCHES | | | | | | WEIGHTS IN LBS. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | At 5 yrs. | | At 9 yrs. | | At 13 yrs. | | At 5 yrs. | | At 9 yrs. | | At 13 yrs. | |
| | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls | Boys | Girls |
| 1910-19 | 40.4 | 39.7 | 47.5 | 47.3 | 55.2 | 55.5 | 38.5 | 37.7 | 54.2 | 51.8 | 74.5 | 76.8 |
| 1920-29 | 40.7 | 40.2 | 48.7 | 48.3 | 55.5 | 56.1 | 39.1 | 37.9 | 55.5 | 53.7 | 76.8 | 79.5 |
| 1930-39 | 41.3 | 41.0 | 49.6 | 49.4 | 56.8 | 57.7 | 39.7 | 38.3 | 57.9 | 57.7 | 81.6 | 85.9 |
| 1940-49 | 42.0 | 41.7 | 50.7 | 50.3 | 58.2 | 58.9 | 41.5 | 39.9 | 60.6 | 58.9 | 86.9 | 91.3 |
| 1950-54 | 42.4 | 42.1 | 51.2 | 50.7 | 58.8 | 59.3 | 42.1 | 40.5 | 62.2 | 60.1 | 89.8 | 94.1 |

Figure 3.

**Average Heights and Weights of Glasgow School Children in Quinquennial Periods since the Session 1909-10.**



The subject of physique has also been studied in relation to the average heights and weights of children residing in houses of various sizes; a survey for this purpose is conducted from time to time and records are available from 1906 onwards. In the following table the average measurements of children staying in houses of various sizes are shown and it will be noted that there was consistent increase in the average measurements with each additional apartment. Another interesting feature was that children from the smaller houses showed the greater improvement since 1906 but probably the removal of families from the smaller to the larger houses had obscured the improvement in the measurements of children from the latter.

It is an interesting finding that while in each age-group the heights and weights of children living in four-roomed houses are greater than those of children living in one-apartment houses, the relative improvement in measurements over the 45 years has been greater among the children who were living in "single-ends" than among those living in larger houses.

## Comparison of Average Height and Weight in Relation to Size of House.

| Age | Year | Height in inches — Number of Apartments. | | | | | | Weight in lbs. — Number of Apartments. | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5+ | All | 1 | 2 | 3 | 4 | 5+ | All |
| 5 years | 1906 | 39.0 | 39.9 | 40.7 | 41.4 | | 40.1 | 37.2 | 38.6 | 39.5 | 40.1 | | 38.7 |
| | 1924 | 40.2 | 40.3 | 41.3 | 41.7 | 42.2 | 40.7 | 38.1 | *†37.8 | 39.9 | 40.6 | 41.6 | 39.1 |
| | 1931 | 40.3 | 40.7 | 41.6 | 42.3 | 42.7 | 40.9 | 38.4 | 39.1 | 40.3 | 41.5 | 41.9 | 39.5 |
| | 1936 | 40.9 | 41.2 | 41.7 | †42.1 | †42.6 | 41.4 | 39.0 | 39.7 | 40.3 | †41.1 | 42.1 | 39.9 |
| | 1944 | 41.3 | 41.7 | 42.0 | 42.4 | 42.7 | 41.8 | 40.5 | 41.1 | 41.4 | 42.1 | 42.2 | 41.2 |
| | 1951 | 41.6 | 42.2 | 42.7 | *42.6 | 43.1 | 42.3 | 40.8 | 41.8 | 42.4 | *42.3 | 43.0 | 41.9 |
| 9 years | 1906 | 46.5 | 47.6 | 48.2 | 48.9 | | 47.7 | 51.4 | 53.1 | 54.8 | 56.3 | | 53.6 |
| | 1924 | - | - | - | - | - | 49.0 | - | - | - | - | - | 56.1 |
| | 1931 | 48.3 | 49.0 | 49.8 | 50.6 | 51.0 | 49.3 | 55.1 | 56.6 | 58.5 | 60.0 | 61.5 | 57.2 |
| | 1936 | 49.0 | 49.5 | 50.0 | †50.5 | †50.8 | 49.7 | 56.5 | 57.4 | 58.5 | †59.6 | †61.1 | 58.0 |
| | 1944 | 50.0 | 50.6 | 50.9 | 51.1 | 51.4 | 50.7 | 59.3 | 60.7 | 61.3 | 61.8 | 62.7 | 60.9 |
| | 1951 | 50.6 | 51.1 | 51.5 | 51.6 | 51.7 | 51.3 | 60.5 | 61.8 | 62.7 | 62.7 | 63.6 | 62.2 |
| 13 years | 1906 | 53.4 | 54.1 | 55.1 | 55.8 | | 54.5 | 69.9 | 72.3 | 75.3 | 76.8 | | 73.5 |
| | 1924 | 54.1 | 54.4 | 55.7 | 56.5 | 57.4 | 54.5 | 72.2 | 73.2 | 78.1 | 79.2 | 85.8 | 74.9 |
| | 1931 | 55.3 | 55.7 | 56.6 | 57.5 | 58.0 | 56.2 | 77.1 | 78.2 | 81.4 | 84.2 | 86.8 | 79.7 |
| | 1936 | 56.1 | 56.8 | 57.4 | 57.9 | 59.1 | 57.2 | 79.2 | 81.6 | 83.6 | 85.7 | 90.9 | 82.9 |
| | 1944 | 57.8 | 58.3 | 58.7 | 58.7 | 59.3 | 58.5 | 87.0 | 87.8 | 89.1 | *89.0 | 91.8 | 88.6 |
| | 1951 | †57.7 | 58.7 | 59.0 | 59.1 | 59.5 | 58.9 | †85.2 | 89.3 | 90.1 | 90.2 | 93.2 | 89.8 |

* Exceptional averages which contradict the general trend of increase in average measurements with increase in number of apartments.

† Exceptional averages which contradict the general trend of increase in average measurements from year to year.

By extracting and further analysing the data in respect of one age-group and sex (five-year-old boys), it emerged that there was a general tendency for the average measurements of the children concerned to rise with each increase in the number of apartments and to fall with each increase in the number of inmates. The consistency of decrease in measurement with increase in number of inmates was marked in the case of children from one-apartment houses. Exceptions to the general trend occurred mainly (1) where in two or three-apartment houses the increase from two to three inmates apparently benefited the child (two adults instead of only one, perhaps making for improvement in economic and other circumstances) and (2) where an increase of one inmate at the higher level (especially in the larger houses) produced varying results.

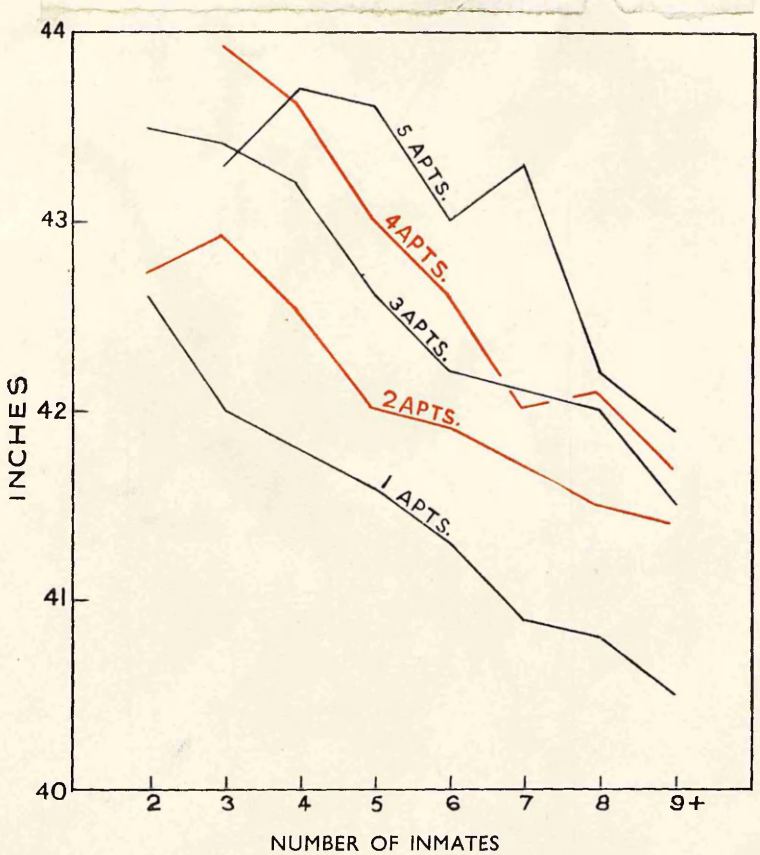
Average Measurements of Boys Aged 5 years Arranged According to Numbers of Apartments and of Inmates.

| Number of Apartments. | | Number of Inmates per house. 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9+ |
|---|---|---|---|---|---|---|---|---|---|
| One | No. of Children | 19 | 192 | 337 | 230 | 150 | 75 | 48 | 31 |
| | Height (ins.) | 42.6 | 42.0 | 41.8 | 41.6 | 41.3 | 40.9 | 40.8 | 40.5 |
| | Weight (lbs.) | 42.7 | 41.5 | 41.1 | 40.7 | 40.1 | 39.5 | 39.4 | 39.4 |
| Two | No. of Children | 25 | 363 | 899 | 680 | 453 | 252 | 150 | 158 |
| | Height (ins.) | 42.7 | *42.9 | 42.5 | 42.0 | 41.9 | 41.7 | 41.5 | 41.4 |
| | Weight (lbs.) | †42.0 | *43.0 | 42.5 | 41.5 | 41.0 | *41.1 | 41.0 | 40.6 |
| Three | No. of Children | 12 | 221 | 523 | 401 | 335 | 196 | 124 | 121 |
| | Height (ins.) | 43.5 | 43.4 | 43.2 | 42.6 | 42.2 | 42.1 | 42.0 | 41.5 |
| | Weight (lbs.) | 42.2 | *43.4 | *43.5 | 42.3 | 41.6 | 41.5 | *41.8 | 40.8 |
| Four | No. of Children | - | 76 | 209 | 247 | 213 | 178 | 134 | 183 |
| | Height (ins.) | 43.9 | 43.6 | 43.0 | 42.6 | †42.0 | *42.1 | 41.7 | |
| | Weight (lbs.) | | 44.2 | 43.9 | 42.6 | 42.3 | †41.3 | *41.5 | †40.7 |
| Five or More | No. of Children | - | 26 | 99 | 82 | 43 | 35 | 47 | 67 |
| | Height (ins.) | †43.3 | *43.7 | 43.6 | 43.0 | *43.3 | 42.2 | 41.9 | |
| | Weight (lbs.) | | †44.1 | 44.1 | 44.0 | 43.0 | *43.2 | †40.6 | *41.1 |

* Exceptional averages which contradict the general decrease in measurements with increase of inmates.
† Exceptional averages which contradict the general increase in measurements with increase of apartments.

Figure 4.

AVERAGE HEIGHTS OF 5 YEARS-OLD BOYS ARRANGED ACCORDING TO NUMBERS OF APARTMENTS AND OF INMATES.



From the foregoing observations, the value of school measurements is demonstrated as affording an index of the influence of social conditions and environment on an important group of the population. These measurements indicate a progressive trend in the direction of the better physical condition of school children which may doubtless be attributed to various influences, educational and social and environmental.

Nutrition. - This is a condition for which no precise standard has ever existed; it may vary according to the standards of assessment of individual officers. However, the more serious conditions are easily recognisable and until 1939 were classified as "bad" or "very bad"; thereafter these were grouped together as "bad". There has been marked improvement over a long period:

Bad and very bad. - 9.1 per cent. in 1919/23; 4.4 per cent. in 1929/33.

Bad..... - 0.6 per cent. in 1941/45; 0.2 per cent. in 1954.

Rickets. - The incidence of rickets among school children is now almost negligible, having fallen from 9 per cent. in 1910/14 to 0.3 per cent. in 1954, the improvement being even greater by reason of the fact that the deformities at the present time are much less gross than in the earlier years.

Dental Disease. - Fewer children with obviously defective teeth are nowadays recorded by medical officers in the course of routine inspection, as compared with earlier years. As an example of the improved position, the following shows the percentages of children with unsound teeth as taken from the returns of medical inspection at intervals of ten years.

| | 1914 | 1924 | 1934 | 1944 | 1954. |
|---|---|---|---|---|---|
| Unsound Teeth (percentage of children examined) | 66.9 | 87.2 | 83.1 | 51.2 | 32.5 |

School dental officers who give full mirror and probe examination at a small number of selected schools usually find that at least 75 per cent. of those examined are in need of treatment; but less than half of these accept treatment at a school clinic. Conservative treatment has increased and facilities for it are now more comprehensive.

External Eye Diseases. - Most of these consist of strabismus, the prevalence of which is much the same as in the past. The incidence of inflammatory conditions (blepharitis and conjunctivitis) is, however, much reduced.

Vision. - Defective eyesight is less prevalent, particularly really "bad" vision as may be inferred from the following comparison:-

| Average percentages in the years: | 1934 | 1944 | 1954 |
|---|---|---|---|
| Fair vision | 16.5 | 14.8 | 11.0 |
| Bad vision | 5.3 | 3.0 | 2.7 |

In 1954, 10,872 children were dealt with at refraction clinics, 5,537 having spectacles prescribed. During the same period 5,537 new cases were supplied with spectacles under the School Eye Service scheme and replacements or repairs totalled 1,747.

Diseases of Ear, Nose and Throat. - These have also become progressively less numerous over the years. Enlarged tonsils with or without adenoid growths form the largest proportion in this group, the majority being found among the entrants. By arrangement with three hospitals such cases are admitted for operation and almost

1,600 were admitted to hospital in 1954.

Defective hearing cases discovered at routine inspection by medical officers have also dwindled (from 1.4 per cent. of those examined in 1914 compared with 0.4 per cent. in 1954) and, with the special examination of 7-year-olds and the audiometric survey of 9-year-olds - over 16,000 children in each group were tested in 1954 - little is left to chance in the ascertainment of deafness among school children at as early a date as possible. Moreover, the comprehensive treatment facilities available (including the services of aurists) enable the children with the minimum of interruption to make the best use of the education suited to their needs and aptitudes.

Speech Defect. - Fewer cases are now reported (0.6 per cent. in 1954 compared with 2.4 in 1914) and facilities for treatment have become more extensive - speech therapists, now eight in number, give treatment to pupils attending ordinary and special schools.

Mental Condition. - The numbers of cases of subnormal mentality met in routine medical inspection have fallen considerably - those described as "dull" or "backward" from 2.0 per cent. in 1914 to 0.2 per cent. in 1954.

Circulatory System. - Heart conditions show little reduction except in respect of acquired organic disease - a sign that the prevalence of acute rheumatism is not so great as in earlier years. The cardiology service for Glasgow school children plays an important part in treating those suffering from heart disease and assessing their capabilities for pursuing the ordinary activities enjoyed by their more fortunate contemporaries: it further affords a guide to

the choice of employment after leaving school.

Diseases of the Lungs. - The information recorded at inspection by school medical officers can relate only to children with the more chronic conditions and not to those with acute respiratory conditions involving absence from school. The data are therefore subject to the qualification that they do not represent the true incidence of respiratory infections. However, chronic bronchitis, which in earlier times formed a large proportion of the whole is now considerably reduced but catarrhal conditions are still fairly prevalent, especially among entrants, although they diminish as school age advances.

Deformities. - The numbers in this category are small and have shown little change throughout many years - with the exception of the phenomenal decline of rickets already mentioned. Treatment is carried out at the four orthopaedic clinics by physiotherapists under the general supervision of the consultant orthopaedic surgeon from Mearnskirk Hospital and to this hospital are admitted those in need of institutional treatment. In the new school for spastics, the staff includes medical auxiliaries (two physiotherapists and a speech therapist) who give the necessary treatment as advised by the visiting orthopaedic surgeon.

Remediability of Defects. - By classifying the children seen at routine medical inspection according to the remediability of the major defects found, the actual state of health is clearly shown. Records so classified are only available for the last twenty years or so, but they demonstrate perhaps more graphically than any other method the general improvement in the health of Glasgow school children during the period. The numbers with the more serious

conditions have progressively declined and those with no recorded defect have shown a remarkable increase. In this connection, the following figures illustrate the progress since 1934.

Proportion of children with no discoverable defect. -

6.7 per cent. in 1934: 17.8 per cent. in 1939

27.9 per cent. in 1944; 48.1 per cent. in 1954.

Some indication of social changes over the years can be gathered from information available about the clothing and footgear and the cleanliness, or uncleanliness, of the children examined.

Clothing and Footgear. - With the passage of time gross insufficiency of these has become increasingly rare, until now, they are seldom encountered. The improvement may be seen from the figures given in the following table.

Average Percentages.

| | 1910/19 | 1920/29 | 1930/39 | 1940/49 | 1950/54. |
|---|---|---|---|---|---|
| Clothing: | | | | | |
| Insufficient | 1.3 | 0.4 | 0.1 | 0.1 | 0.0 |
| Ragged | 3.1 | 1.6 | 0.3 | 0.1 | 0.0 |
| Dirty | 2.8 | 2.0 | 0.2 | 0.1 | 0.1 |
| Totals | 7.2 | 4.0 | 0.6 | 0.3 | 0.2 |
| Footgear: | | | | | |
| Unsatisfactory | 2.3 | 1.0 | 0.4 | 0.3 | 0.1 |
| None | 5.2 | 0.8 | 0.0 | 0.0 | 0.0 |
| Totals | 7.5 | 1.8 | 0.4 | 0.3 | 0.1 |

Uncleanliness. - This is a condition which has always been and still remains, a problem, in spite of unremitting supervision. At present efforts to ensure the cleanliness of school children follow these main lines.

(a) Cleanliness inspection by school nurses ("cleanliness inspectresses"), the first of whom were appointed in 1942, is undertaken in more than 90 schools under the provisions of the Education (Scotland) Act, 1946 (Section 52). Parents are notified and instructions on methods of cleansing are sent under cover; cleansing clinics are also available where a cleanliness inspectress is in attendance twice weekly. Persistent offenders are subjected to the statutory procedure; that is, are given 24 hours' notice to cleanse and, in default, the children are compulsorily cleansed at school or clinic and the parents prosecuted if the offence is repeated. In 1954, cleanliness inspections totalled 167,218 - the highest ever recorded - and 82 cases were referred to the Procurator Fiscal.

(b) A similar number of other schools are visited by sanitary nurses who also visit the homes of offenders and if necessary, issue formal notices to cleanse within 24 hours under the provisions of Glasgow (Police) Order Confirmation Act, 1904. In 1954, the inspections by sanitary nurses numbered 129,718 and over 4,000 visits or re-visits were made to houses.

(c) Cleanliness supervision by senior woman assistants in selected schools - the so-called "Hygiene Unit" scheme initiated in January, 1941 and now functioning in 26 schools - following reorganisation has increased in efficiency but must obviously depend for its success on the time which can be spared by the senior woman

assistant and on the enthusiasm and ability of the attendant.

The prevalence of uncleanliness over the years is clearly demonstrated in the table below. It will be noted that there was a steady improvement until the outbreak of war and there are signs that leeway is now being made up in the post-war period; but it has taken a long time to regain the position of 1939.

Cleanliness of Glasgow School Children at Routine Medical Inspection.

| | Average Percentages. | | | | |
|---|---|---|---|---|---|
| | 1910/19 | 1920/29 | 1930/39 | 1940/49 | 1950/54. |
| Head - Dirty | 2.1 | 0.7 | 0.2 | 0.0 | 0.0 |
| Nits | 20.3 | 10.5 | 6.4 | 11.4 | 9.4 |
| Vermin | | 0.8 | 0.3 | 0.3 | 0.2 |
| Body - Dirty | 1.1 | 1.3 | 0.5 | 0.2 | 0.1 |
| Vermin | 2.8 | 0.9 | 0.2 | 0.1 | 0.0 |
| Totals | 26.3 | 14.2 | 7.6 | 12.0 | 9.7 |

Skin Diseases. - The incidence of these conditions has fallen steadily, ringworm and scabies particularly so, and only impetigo shows an occasional tendency to flare up. The popularity of the school clinic has remained undiminished as the centre to which school children are inclined to resort for the treatment of skin conditions, minor injuries, cuts, bruises, etc.

## CHAPTER X.

## SPECIAL SCHOOLS AND CLASSES AND RESIDENTIAL SCHOOLS.

The Corporation makes special provision for:-

(a) Handicapped Children. -

(1) Mentally handicapped - 18 Day Schools and 9 Occupational Centres.

(2) Physically handicapped, delicate or convalescent - 10 Day Schools, 6 Residential Schools, 6 Hospital Schools and a Scheme of Home Tuition. (One day school has a separate unit for spastic children.)

(3) Defective vision - 1 Day/Residential School for blind children and 1 Day School for the partially sighted.

(4) Defective hearing - 1 Nursery/Infant Day School, 1 Day School and 1 Day/Residential School for the partially deaf and 2 Day/Residential Schools for the deaf.

(5) Mentally handicapped and deaf - 1 Class in a Day School (Rottenrow).

At 30th June, 1955, the number of children receiving special educational treatment in schools administered by the Corporation was as given below:-

Physically handicapped children, 1,331; children with hearing defects, 357; children with defects of vision, 103; mentally handicapped (educable) children, 3,057; mentally handicapped (trainable) children, 442; - total 5,290. This total compares with 5,382 handicapped children in 1954 and 5,344 in 1953.

Children who are classified as handicapped are required to

remain at school until the "leaving date" following their sixteenth birthday.

Educational provision is made from the age of 3 years for blind children and children with defective hearing, while for all other categories the age of entry to school is 5 years. Deaf children under the age of 3 years may be taken to the advisory centres at the nursery/infant schools where parents are given help and advice on the early training of such children.

School medical officers examine all handicapped children at frequent intervals to ascertain progress and to recommend, where possible, return to ordinary school. In addition, specialist services are provided for children with defects of hearing or vision and for orthopaedic and heart cases.

In addition to the foregoing provision, Glasgow children in need of special care and attention are accommodated and educated at various centres not under the management of the Corporation.

(b) Normal Children. - 4 residential schools outwith the city where normal children go in school groups for a period of four weeks. There is also a residential nursery school at Fairlie where children go in groups from each Glasgow nursery school in turn for a period of generally three and a half weeks. In addition, a residential school at Aberfoyle is leased from time to time where children are accommodated for a period of four weeks and parties of post-primary school children are sent to one of two other schools for character training courses.

(c) Maladjusted Children. - 4 main and 7 subsidiary clinics for child guidance purposes function throughout the City. There is also a residential school outwith the City.

## PHYSICAL EDUCATION AND PERSONAL HYGIENE.

All pupils receive instruction in physical training unless granted exemption on medical grounds. Any case may be referred to the school medical officer for examination. In heart cases, the specialist places the children in one of four categories, ranging from "normal physical training" to "no physical training of any kind" and intimation is given to the teacher concerned who is instructed to report to the school medical officer any signs of ill effect, etc. observed.

In 1954, the Corporation adopted for use in schools the "Syllabus of Physical Education for Primary Schools" issued by the Education Department and principal teachers from secondary schools visit neighbouring primary schools to demonstrate physical training lessons and to advise class teachers. A number of primary schools also receive a weekly visit from an assistant teacher.

Instruction in personal hygiene and simple first aid is given in secondary schools as part of the scheme of physical education; and in primary schools, class teachers give short lessons on health habits. These lessons are based on the "Model Syllabuses in General Hygiene" issued by the Scottish Council for Education and adopted in April, 1951 for use in Glasgow schools.

In schools where facilities are available, pupils with the consent of their parents, attend spray baths and at certain times of the year provision is made at school ponds or at Corporation Public Baths for instruction in swimming to be given by teachers of physical education.

Mobile spray baths, three units, visit 15 selected schools, each unit providing approximately 200 baths daily and a school nurse is in attendance to examine children before they use the sprays.

## CHAPTER XI.

## ARRANGEMENTS FOR FEEDING AND CLOTHING SCHOOL CHILDREN.

### School Meals.

Meals are supplied to school children through the Corporation's school meals service under the experienced direction of the organiser and of the supervisors of the main cooking centres. Where necessary, and in consultation with the school medical officer, the menus are adapted or special diets are provided for special cases, including children suffering from such conditions as gastric and kidney ailments, coeliac disease and diabetes. The general hygiene of the service is under constant supervision and close co-operation is maintained with the School Health Service.

Dining centres are located in school premises, prefabricated dining rooms and in church halls. At 31st July, 1955 there were 36 kitchens and 5 school meals centres preparing meals for school children, and the meals were served in 357 dining rooms, 286 of which were in school premises and 71 in church halls. Of the 286 dining rooms in schools, 31 were at schools for handicapped children and 39 were in nursery schools. On an average day, the total number of meals served is nearly 65,000, over 63,000 of which are dinners, about 16,000 of the dinners being provided free of charge. During the year ended 31st May, 1955, a total of 15,296,192 meals were prepared in the kitchens.

Dinners only are supplied to pupils of ordinary day schools and schools for the handicapped. In nursery schools, dinners and teas are served, while the Remand Home and day nurseries of the Health and Welfare Department receive breakfasts, dinners and teas.

Weekly tickets may be purchased by pupils having dinner in school at the following prices:-

5 dinners per week - 3/6d. for the first child of family,
3/1d. for the second and
2/11d. for subsequent children.

6 dinners per week - 4/1d., 3/8d., and 3/6d., respectively.

Remission rates of 2/11d., 2/3d., 1/6d., or 9d. (according to family income) are charged for a ticket entitling a child to six dinners per week, the price being the same for each member of a family. In schools for handicapped children, the prices are 1/10d. and 2/1d. for five and six dinners respectively or at remission rates for six dinners of 1/6d. and 9d.

Footwear and Clothing.

The number of applications for clothing has steadily declined as the result of the National Assistance Board's acceptance of responsibility for the clothing needs of children of their dependants. In the year ended 31st May, 1955, children to the number of 1,242 were supplied with footwear and clothing compared with 9,339 in 1945, 48,256 in 1935, and 17,824 in 1925.

Milk in Schools.

Provision is made for pupils in all schools to be supplied with milk free of charge, the allocation being one-third of a pint daily to each child. The milk is of high quality, being Tuberculin tested and pasteurised. Samples of the milk are from time to time taken for analysis and any irregularities are investigated and rectified. During 1954, almost 34,000,000 milk rations were supplied and it was estimated that about 86 per cent. of the children took the milk.

## CHAPTER XII.

## GENERAL SUMMARY AND CONCLUSIONS.

As the result of medical inspection in schools, continuous records of the physical condition of school children are available since the year 1910 - information of a nature which is non-existent for any other group of the population.

These records show that the physical condition of school children has consistently improved as established by: (1) the increased height and weight averages; (2) the diminishing incidence of the more severe conditions; and (3) the high proportion of children with no apparent defect and consequently the reduced volume of discoverable ailments.

The School Health Service is an organisation which not only searches out defects among school children but provides the necessary treatment. A school child is under medical supervision from the moment he enters school until he leaves.

Treatment facilities provided through the School Health Service are comprehensive. The school clinic acts (1) as a centre for specialist examination and treatment and (2) as a convenient place where large numbers of children suffering from minor ailments may receive treatment with the minimum loss of school time. In its latter capacity, the school clinic also serves a useful purpose by reducing the pressure on the general practitioner and hospital services.

Co-operation with the Hospital Board organisation has been successfully maintained since the National Health Service (Scotland) Act, 1947 became law and, following the difficult transitionary

period, the School Health Service has had, on the whole, little reason for complaint. In fact, the situation at present - with a moderate sufficiency of specialists seconded to school clinics by the Board and a fairly generous allocation of hospital beds for school children in need of operative or other forms of institutional treatment - augurs well for the future. The School Health Service has also been able to further this co-operation in several ways - for example, by recommending the admission of convalescent hospital patients to residential schools or holiday homes.

Co-operation with the general medical practitioner is successful, within limits, but it is felt that the facilities available through the School Health Service are not widely enough known. In particular, by making use of the minor ailments clinics the general practitioner would relieve himself of much routine work and allow of more economical employment of his available time.

Without the co-operation of the teaching staffs, the objects of the school medical service would be unattainable and health progress can only be assured if parent, teacher and medical officer work in harmony. This co-operation is being steadily maintained and there is no doubt that the school teachers have made and continue to make a valuable contribution by their personal interest in the children.

The early ascertainment of ailments and defects with consequent treatment is essential to enable the best use to be made of the education provided. By means of systematic medical inspection, reports from teachers and others, surveys (e.g. audiometric), inspections by nurses (cleanliness, testing of vision and hearing of 7 year-olds), routine dental inspection, there is little likelihood

of a school child having an ailment or defect undiscovered for any length of time. The treatment facilities to remedy these defects have been discussed in the text.

Provision for education of the handicapped child is closely bound up with medical considerations. The principle that instruction should be adapted to the needs and aptitudes of the pupils - that is, according to their physical and mental capacity - is recognised and applied in a number of directions, such as in the provision of special schools and classes, residential schools and other schemes.

In recognition of the importance of good environmental conditions in the promotion of the health of children, an increasing number of schools are now being erected on open-air principles, and with the provision of gymnasia and playing fields. Unfortunately many of the existing schools, especially in the older congested areas, are ill-adapted for their purpose; the best conditions are to be found in the new housing schemes where modern schools and recreation facilities are provided.

## Epilogue.

What are the prospects for the future?

The Department has made it clear that the preventive aspect of school children's health is still to be regarded as the prerogative of the local authority, the School Health Service taking a prominent part in all such work.

Although treatment now comes within the province of the National Health Service, the local authority is not absolved from ensuring, in terms of the Education Acts, that free treatment is readily available to school children either through the National scheme or through facilities provided by the local authority. In fact, as has already been shown, the local authority is exhorted to extend the system of providing "minor ailment" and dental clinics and to co-operate with the Hospital Board in the provision of hospital and specialist treatment.

In this age of specialisation, the School Health Service surely comes into the "special" category by virtue of its concentration on the care and well-being of an important section of the populace? The individuals who form the staff of this Service have specialised in the medical inspection, supervision and treatment of children over some years. Treatment follows close upon inspection and continuity is ensured, in most instances, as the same doctor sees the child in school and at clinic.

Education and health are so closely related that the complex organisation evolved over more than forty years could not lightly be discarded; this was amply demonstrated during the war years. The co-ordination between medical and teaching staffs for encouraging

pupils to obtain medical treatment and, if necessary, to enforce compliance; the following-up, the after-care, the ceaseless propaganda, the inculcation of habits to promote healthy living - all such, if discontinued, would assuredly be detrimental to child health and to posterity.

In some quarters, the value of routine medical inspection of the various age-groups has been questioned and it has been suggested that the time of the school medical officer would be more usefully spent in examining only children selected by teachers and health visitors. This view is strongly to be deprecated, as not only is routine inspection the foundation on which the structure of the School Health Service has been raised so successfully, but it is the means whereby parents have and seize the opportunity of consulting the school doctor in regard to all kinds of problems relating to the health and welfare of their children. Moreover, the visiting medical officer represents a service whose object is to promote the health and well-being of the school child and during his visit the headmaster and teachers consult him on various aspects of school life and discuss problems affecting the school child and the hygiene of the school premises.

Progress, in my opinion, lies more in the direction of extending the present co-operation with other branches of the public health service - more particularly with the hospitals. Formerly reports on all children discharged from infectious disease hospitals were referred to and kept under observation at school clinics. If this arrangement were to be revived and extended to include <u>all</u> hospitals, the information would be valuable to the school doctor at routine

and other inspections. More co-operation is desirable also with the general practitioner, many of whom appear to be unaware of the facilities available through the School Health Service which could be more fully used with a consequent saving of time and labour.

## REFERENCES.

DEPARTMENT OF HEALTH FOR SCOTLAND - D.H.S. Circular No. 113/1948.

- N.M.C. Circular No. 60/1938.

ROYAL COMMISSION ON PHYSICAL TRAINING (SCOTLAND) - Report, 1903 (Col. 1508)

INTER-DEPARTMENTAL COMMITTEE ON PHYSICAL DETERIORATION - Report, 1904 (Col. 2175)

CHALMERS, A.K. - Report to the Royal Sanitary Institute, 1904, of an Inquiry into the Physique of Glasgow School Children.

MACKENZIE, W.L. and FOSTER, A. - Report on the Physical Condition of Children attending the Public Schools of the School Board of Glasgow. (Col. 3637)

GOVAN PARISH SCHOOL BOARD - Annual Report, 1907.

BROWN, G.A. - Govan Parish School Board: Annual Reports on the Medical Inspection of School Children, 1908 to 1919.

- Corporation of Glasgow, Education Health Service: Annual Reports on Medical Inspection and Treatment of School Children, 1930 to 1937.

ROBERTS, E.T. - School Board of Glasgow: Annual Reports on Medical Inspection of Children, 1910 to 1919.

- Education Authority of Glasgow: Annual Reports on the Medical Inspection and Treatment of School Children, 1920 to 1929.

BRUCE, R. - Corporation of Glasgow, Education Health Service: Annual Report on Medical Inspection and Treatment of School Children, 1938.

YOUNG, J.M. - Corporation of Glasgow, Education Health Service: Annual Reports on Medical Inspection and Treatment of School Children, 1939 to 1946.

ANDERSON, A.A. - Corporation of Glasgow, Education Health Service: Annual Reports on Medical Inspection and Treatment of School Children, 1947.

EWAN, J. - Corporation of Glasgow, School Health Service: Annual Reports on Medical Inspection and Treatment of School Children, 1948 to 1955.

The following are actual photographs recently taken, of conditions prevailing in an old school and in a modern one.

Figures 5-8 illustrate the unsatisfactory conditions which obtain in an old school - the pictures relate to St. Andrew's Primary R.C. School (located in the centre of the City) which was built in 1874 and is still functioning.

Figures 9-11 show the improved conditions which are typical in a new school - in this case, Leithland Road Primary School (located in a new housing scheme on the outskirts of Glasgow) which was opened in 1951.

Figure 5.

Narrow playground in old school.

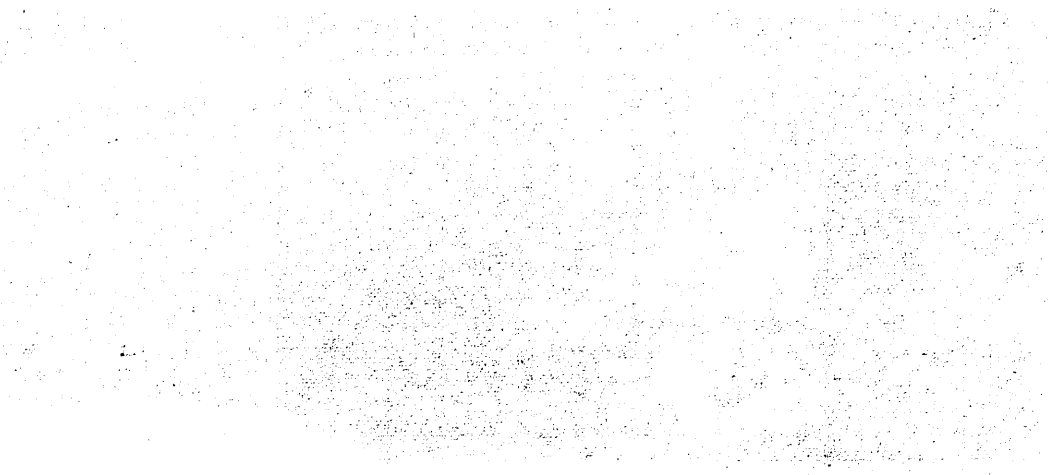


Figure 6.

Same picture as in Figure 5, but photographed at play interval.

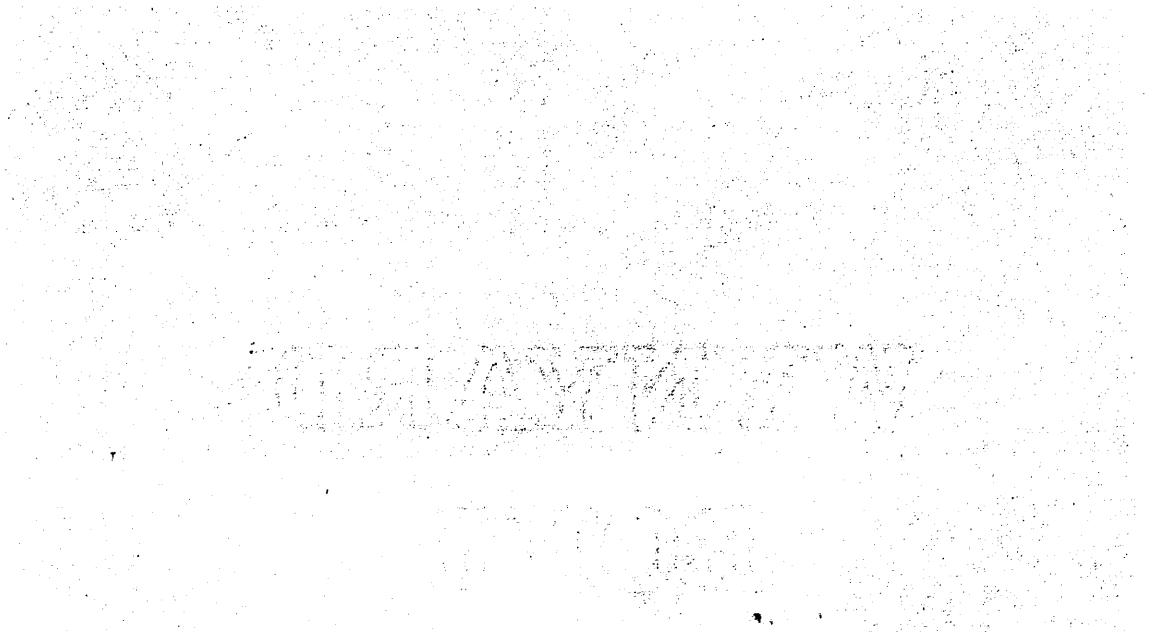


Figure 7.

Playground shelter in old school.

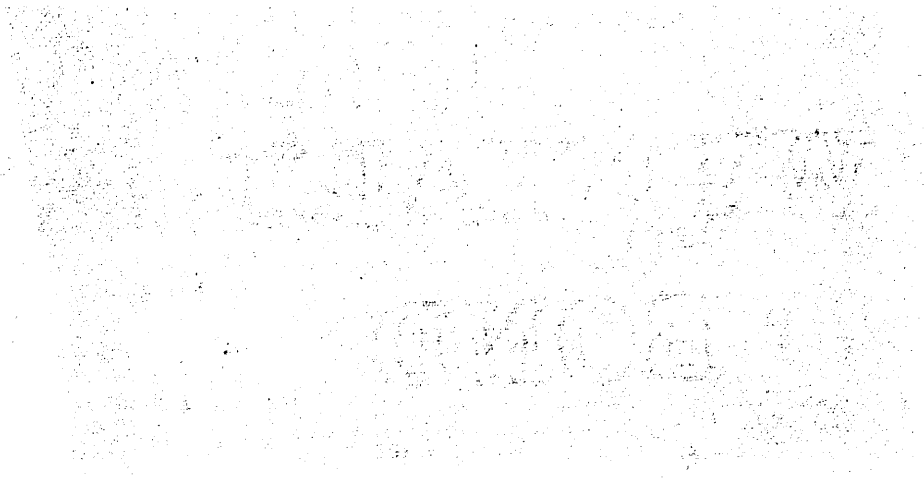
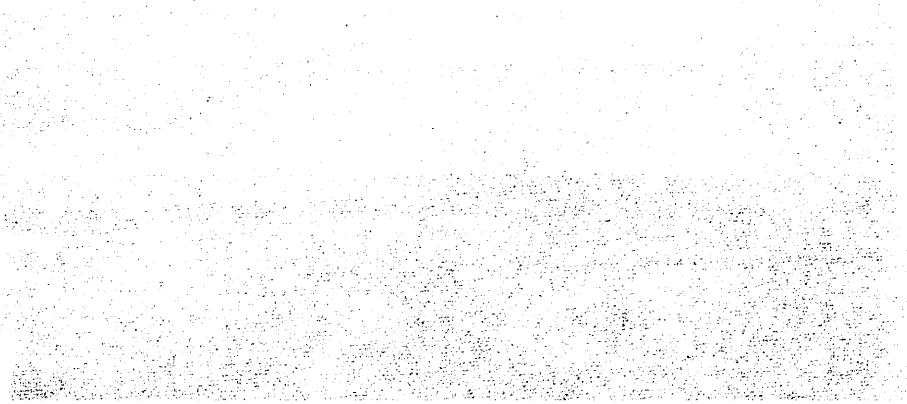


Figure 8.

Children's toilet and drinking fountain in old school.



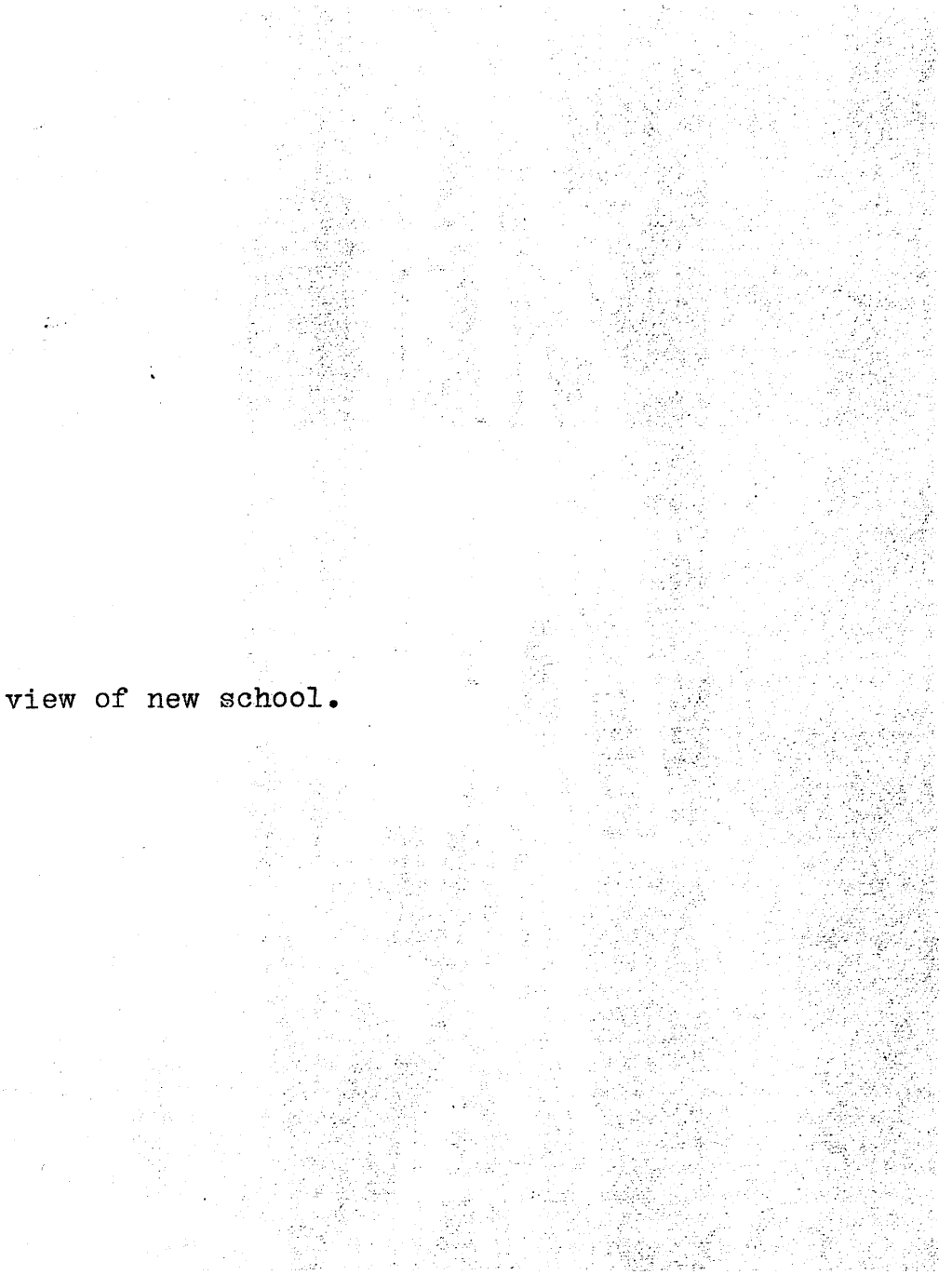


Figure 9.

General view of new school.

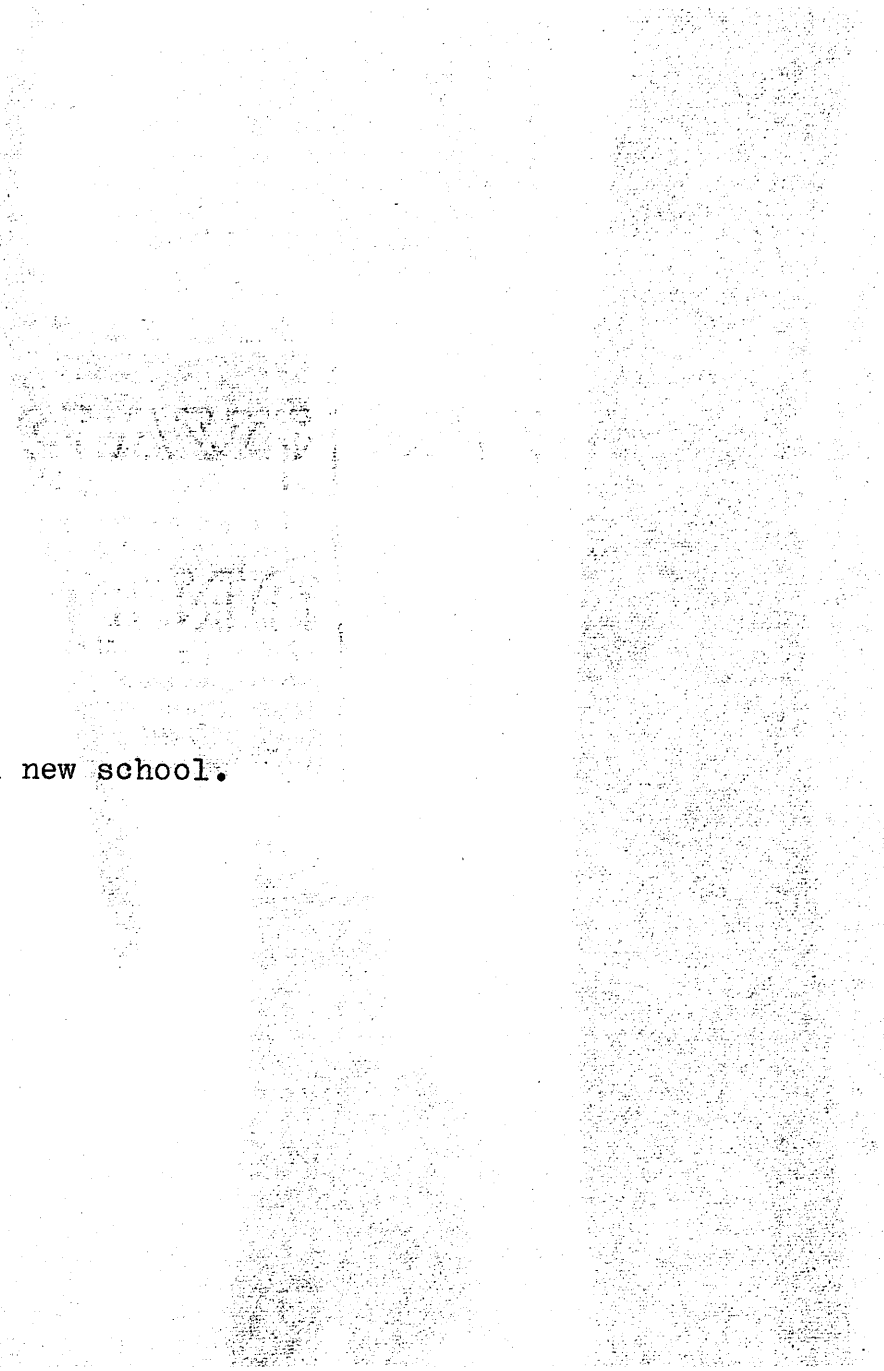


Figure 10.

Playground in new school.

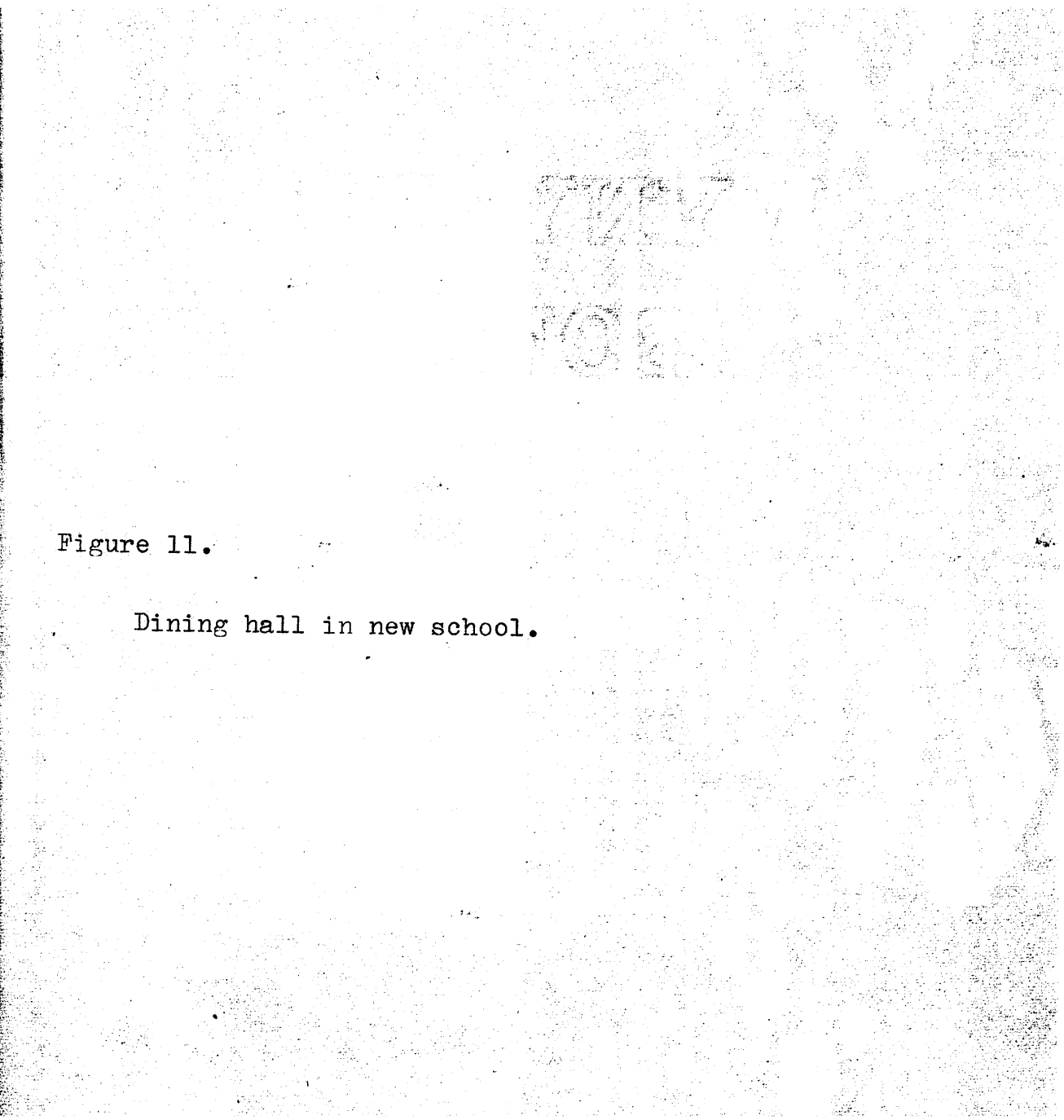


Figure 11.

Dining hall in new school.