[Report 1932] / School Medical Officer of Health, Salop / Shropshire County Council.

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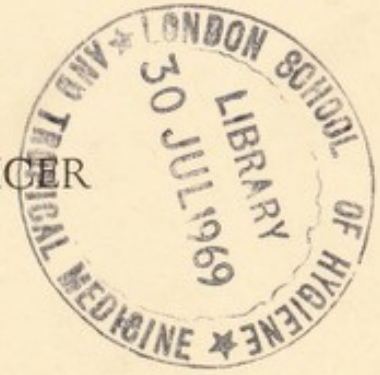
ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

TO



The Education Committee

OF THE

SALOP COUNTY COUNCIL

1932.

WILLIAM TAYLOR, M.D., D.P.H.

Medical Staff.

School Medical Officer :

WILLIAM TAYLOR, M.D., D.P.H.

Assistant School Medical Officers :

KATHLEEN PRIESTLEY, L.S.A.
MABEL BLAKE, M.B., Ch.B.
LESLIE WILSON EVANS, M.B., D.P.H. (part-time).
BERNARD A. ASTLEY WESTON, M.B., D.P.H.
WILLIAM H. HARRIS, M.B., D.P.H. (part-time).
SIDNEY S. PROCTOR, M.D., D.P.H. (commenced duty 11th January, 1932).

School Dental Officers :

STEPHEN KEENAN, L.D.S.
FRANK H. BIRCH, H.D.D., L.D.S.
GERALD R. CATCHPOLE, L.D.S.

Organiser of Physical Training :

MRS. K. W. DAVEY, Diploma of the College of Physical Education.

To the Chairman and Members of the Education Committee.

LADIES AND GENTLEMEN,

I have the honour to present the Annual Report for 1932.

Although this year is not one which has been characterised by the introduction of new schemes, those already in being have provided ample opportunity for energy and initiative on the part of the staff. Evidence of satisfactory progress is to be found in the greater willingness of the parents to follow the advice and to secure the treatment recommended by the Medical Inspectors.

As regards the Dental Scheme, it is encouraging to be able to report that there has been a fall of thirty per cent. during the past two years in the number of children whose parents have refused to agree to the treatment advised and offered by the School Dental Officers.

The results obtained by Ceiling Heating in the two new schools in which it has been installed have been the subject of special observation ; and this matter is dealt with on pages 5 to 7 of the Report. It is considered that. as well as being the method of heating most conducive to health, it is also the most efficient method of solving the problem of heating in schools, and that any present difficulties which there may be can be satisfactorily overcome.

I am, Ladies and Gentlemen,

Your obedient Servant,

WILLIAM TAYLOR,
County Medical Officer and
School Medical Officer.

College Hill House,
Shrewsbury,
May, 1933.

AREA COVERED BY THE SALOP EDUCATION AUTHORITY, NUMBER OF SCHOOLS, DEPARTMENTS, AND CHILDREN ON REGISTER.

The area covered by the Salop Education Authority comprises 858,277 acres, and at the time of the 1931 Census had a population of 211,784. With the exception of the area represented by the Borough of Shrewsbury, which is an independent authority for elementary education, it is co-extensive with the administrative county.

At the end of the year there were 330 departments comprised in 277 schools. On 31st December, 1931, the number of children on the register was 29,867, as opposed to 30,144 on 31st December, 1932.

STAFF.

There are six Assistant School Medical Officers, (two of whom hold positions as District Medical Officers of Health within the County), seven-tenths of their time being devoted to the work of School Medical Inspection and three-tenths to Maternity and Child Welfare work.

In addition to the Assistant Medical Officers above mentioned, there are—

3 School Dental Officers.
1 Organiser of Physical Training.
2 Whole-time School Nurses.
10 Health Visitors undertaking school nursing.
90 District Nurses undertaking school nursing.
3 Dental Helpers.

CO-ORDINATION.

As the School Medical Officer is the County Medical Officer, and as the Assistant School Medical Officers are also the Assistant Child Welfare Medical Officers, this allows of complete co-ordination of the school medical services with the other health services of the County. In the case of the Oswestry Urban and Rural Districts, and the Urban and Rural Districts of Ellesmere, in which County Council Assistant Medical Officers are also the District Medical Officers of Health, a further means for co-operation and co-ordination between the various branches of the health services is provided.

The advantages of the above arrangements become apparent when the work in the various clinics in the County is borne in mind. The same Medical Officers attend both the School Clinics and the Child Welfare Clinics, which are held in the same buildings on the same day. In addition, the Orthopaedic Clinics, although conducted by other than County Council Medical Officers, are also held in the same buildings and, with one exception, at the same time as the Child Welfare Clinics. By such an arrangement those responsible for one branch of the work can readily refer any child to a Medical Officer responsible for another branch, according to the nature of the defect from which the child is suffering. The Assistant School Medical Officers, therefore, have every opportunity of keeping in touch with those children under five years of age, and also with those over that age, who are under the necessity of attending one or other of the various clinics.

With regard to the Tuberculosis Scheme, arrangements are in force whereby a child, whose physical condition is such as to render the opinion of a Tuberculosis Officer desirable, can readily be referred to him for examination, and for supervision and re-examination, if such is considered necessary or advisable.

By these various arrangements the care of the debilitated children under school age is adequately provided for, especially as the health visitors, who attend the Child Welfare and Tuberculosis Clinics, are also responsible for School Nursing.

HYGIENIC CONDITION OF THE SCHOOLS.

In a County such as Shropshire, in which the population is about equally distributed between Urban and Rural Districts, it naturally follows that there are great differences in the hygienic condition of the schools. The size of the schools varies so greatly, and the means for making provision for sanitation differ so widely with the locality, that nothing like uniformity is obtainable. Although there is ample room for improvement in certain instances, steady progress is being made, and each year sees advances not only in the provision and improvement of sanitary arrangements and water supplies, but also in the matter of heating, lighting and ventilation. In certain of the older schools the design of the class-rooms is so bad that the distance across is greater than that from back to front, the result being that, if the teacher is to get all the children comfortably within his field of vision, it is necessary to crowd all the desks as far as possible into one-half of the floor space. Such an arrangement is extremely bad, as it does not permit of proper spacing of the children and is conducive to the spread of infectious disease, which is, as a rule, conveyed from one child to another through the inhalation of air contaminated by infected particles sprayed into the atmosphere as a result of coughing.

Heating and Ventilation.

It is important not only to have adequate spacing of the children, but also to have ample ventilation in order to flush out the vitiated atmosphere and replace it with fresh air, and this can only be obtained if, in addition to proper ventilation, there are also satisfactory means for heating. The problems of heating and ventilation cannot be considered separately, as they are one and the same, and the final solution must always result in a compromise.

Ventilation which promotes a feeling of chilliness by lowering the body temperature depresses the vitality, and is unsatisfactory in that it renders the child susceptible to any infection with which it comes in contact. Warmth which is provided at the expense of adequate ventilation is equally harmful in that it leads to vitiation of the atmosphere of the class-room and frequently to the loading of it with infective material. The more fresh air a child obtains the better, but the means of heating the school must be such that the debilitated and weakly children can maintain the normal body temperature ; otherwise the results are likely to be harmful.

It must be recognised, therefore, that it is practically impossible to provide adequate ventilation unless steps are taken to keep the children comfortably warm, especially if they are underclothed or underfed ; and it is difficult to find fault with a teacher who on a cold winter day keeps all the windows closed in an effort to heat the school, when the only means of heating the class-rooms is by means of a fire placed in one corner, especially if the fire-place is of faulty construction, which unfortunately is only too often the case in some of the older schools.

Open-air Schools.

The ideal is of course an open-air school, and the Local Education Authority is approaching as near to this as is possible by constructing new schools on the open-air principle. Doors are placed along one side of each class-room in such a way as to enable the whole of this side of the room to be thrown open to the outside air, and in order to enable these facilities for bringing the children into contact with the open air to be utilised to the fullest extent, special heating arrangements are being installed. It is hoped that in this way not only will an improvement in the general health of the children be promoted, but that there will also be a reduction in the prevalance of infectious disease. It is a lamentable fact that many parents succeed in keeping their children free from serious forms of infectious disease till they begin to attend school, only to find that they then go down with one form of infection after another, sometimes with most unfortunate consequences. If, therefore, the heating arrangements in the schools constructed on the open-air principle are such that the children can be kept warm when the whole of one side of the class-room is thrown open, it is reasonable to expect that considerable improvement in the general health of the children will be brought about.

Ceiling Heating.

It must be recognised that at the present time the usual method of heating is one which results in warming the air contained in a room. In an open-air school this principle is of course quite impracticable, if the doors to the outside air are to be kept open to any considerable extent. An atmosphere which is continually changing, as will be the case in an open-air school, cannot be a warm atmosphere ; and, if considerations of warmth will not permit of a changing atmosphere in such a school under normal conditions in this country, schools constructed on the open-air principle must to a great extent be considered a failure. It is intended to heat the children rather than the room, and the only practicable way of doing this is to place the source of heat in such a position that the rays of heat will fall directly on them. The principle of ceiling heating has therefore been adopted in the new schools at Wem and Harlescott, although this method is more or less still in the experimental stage.

When the whole of one side of a class-room is thrown open to the outside air the actual temperature in the room gives no real indication of the extent to which this method is proving satisfactory, because, as stated above, a new principle is involved, the successful application of which should result in a cool, fresh atmosphere in the room through which heat rays are being transmitted from the ceiling on to the children, who should be kept warm in the same way as when standing in the rays of a bright sun. It is, of course, too much to expect that in all weathers it will be possible to keep the whole of one side of the class-rooms open, but this method of heating ought at least to allow of a very close approximation to open-air conditions in these schools at certain times of the year. To what extent this will be secured depends greatly on the teachers ; and time must be allowed them to ascertain by experience in different kinds of weather how to utilise to the best advantage the facilities at their disposal. It is, however, a matter to which the Head Teachers of these schools might be requested to give special attention, as the success or otherwise of this method of heating in these schools must to a certain extent be a governing factor in deciding on the method of heating to be employed in the schools either in the process of construction or the construction of which is under consideration. The success of the ceiling method of heating a class-room cannot be judged by the readings of the thermometer on the wall, as these will indicate, mainly, the temperature of the air in the room, which of course this method of heating is not designed to warm. If the children are comfortable and do not complain of cold, which is the real test, such readings can be disregarded, and this result ought to be obtainable, even with a low atmospheric temperature.

Dr. Weston, Deputy County M.O.H., and Dr. Harris, Assistant Medical Officer and M.O.H. for Ellesmere, who inspect Harlescott and Wem Schools, respectively, have been asked to report specially on this method of heating in these schools. Dr. Weston has, in addition, dealt with the question of the various methods of heating in the schools generally, and his report is therefore quoted in full.

As regards Wem Senior School Dr. Harris reports that, owing to various causes which he has tried to ascertain, he has not found ceiling heating entirely satisfactory in this school. His criticism is directed chiefly to the period immediately following the opening of the school in the morning, when for about half-an-hour the children sometimes complain of cold, although he thinks that all through the day the heat supplied is insufficient. As a consequence most of the windows are found closed when the school is visited, and the teachers state that if they are opened the temperature falls rapidly. Unless this difficulty can be overcome there is, of course, little point in constructing schools on the open-air principle, as only in the warmest part of the year will it be possible to throw the whole of one side of the class-room open to the outside air. The method of ceiling heating is not in itself the subject of criticism by Dr. Harris, who suggests that, in addition to certain alterations in the routine method of stoking, what is required is a slight raising of the working pressure of the boiler, in order to secure a greater radiation of heat in the class-rooms during the whole of the day. He considers that, if this were done the

school could then be adequately ventilated and the open-air principle of construction fully taken advantage of. He has sometimes found that, even as things are at present, the temperature has reached 70 degrees in the afternoon. This certainly does not indicate any shortcomings in the method and principle of ceiling heating and the sequence of events in Wem Senior School would appear to be, insufficient heat in the morning, inadequate ventilation all day as a result, and too high a temperature in the afternoon. Dr. Harris's final remarks are :—

" Ceiling heating is the most efficient method of heating class-rooms that we have at present. The efficacy of this system depends on three factors :—(1) Plant capable of generating sufficient heat, (2) suitable stoking, and (3) proper ventilation of the class-rooms by the teachers. Co-operation between the stoker and the teachers is essential. If the work be properly carried out the temperature and ventilation of the class-rooms can be kept at a comfortable standard."

It will be observed that Dr. Harris's report is fully confirmed by that of Dr. Weston, whose report on heating in schools in general, and in Harlescott in particular, is given below :—

" To estimate the success or otherwise of the heating system at Harlescott School it is necessary to compare it with other systems operating in the County. Briefly these are :—

" (*a*) *Coke Stoves.*—These operate partly by radiation, but chiefly by convection, that is to say, they warm the room by raising the temperature of the air. The result is that to produce the desired temperature, ventilation has to be reduced to a minimum. Owing also to the great heat on the surface of the stove, the air is dried excessively and produces a dry uncomfortable condition of the mucous membranes of the nose and throat, thus rendering the individual increasingly susceptible to infectious diseases of the respiratory tract. In a few cases where the stove is cracked or flue joints do not fit there is a danger that a down-draught may drive highly poisonous fumes into the room.

" (*b*) *Anthracite Stoves*—are subject to the same objections as the coke stoves, but have one advantage in that they are kept burning at a slow rate all night and during the week-end, with the result that the class-rooms are warm when the children enter them in the morning.

" (*c*) *Open Fires*—apart from the fact that they are wasteful of heat which is lost up the chimney, they produce a much healthier atmosphere in the room. The majority of the heat utilised is radiant, that is to say, the air is not heated but only those objects on which the heat rays fall, such as the body, walls or furniture. The draught necessary for the rapid combustion of an open fire assists materially in ventilation. Open fires are, however, subject to two objections as sources of heat in a class-room : as with coke stoves, the rooms cool rapidly at night, when the fire goes out, and the temperature at 9 a.m., when the children enter school is often too low for health or for satisfactory mental work. The heat also is entirely local, so that if children at the far end of the room are to be comfortable, those near the fire are uncomfortably hot and conversely, if those near the fire are comfortable, those farther away are not warm enough.

" In each of these methods of heating there is also the disadvantage that one or more children or the teacher is frequently diverted from work to stoke the fire if a constant temperature is to be maintained.

" (*d*) *Hot Pipes and Radiators*—in many class-rooms hot water pipes or wall radiators have been added to the existing stove or open fire. By this means the heat is more evenly distributed, but all the evils of the stove are retained.

" (*e*) *Ceiling Heating.*—Bearing in mind these facts, it must be admitted that the system of ceiling heating by low pressure steam pipes, as existing at Harlescott, is a great improvement over the older methods. The effective heat in the class-rooms is entirely produced by radiation as the air heated by the pipes remain near the ceiling, eliminating all convection except that which is caused by the warming of the floor and furniture by radiation. In theory it should be

possible to keep the body warm by radiant heat while maintaining the maximum of ventilation, and I am informed that this object is attained in practice. On certain cold days during the past winter it has been possible to maintain a comfortable condition in the rooms, while one side of the room was entirely open. Such conditions are ideal for health and for the prevention of the spread of infection, and at the same time are the best for mental alertness. The one factor that may prevent this desirable condition from being universally maintained is a wind blowing directly on the open side of the rooms, and it is very necessary that all teachers should realise the object to be aimed at and so use the available windows and doors intelligently.

"An additional advantage noted is that heat is evenly distributed through the rooms, and no child would be uncomfortably hot or cold. There is also no danger from fumes, and no interference caused by stoking, as the source of heat is not in the class-room.

"Two defects, however, have to be noted. The heat varies in different rooms, and it is stated that with the exception of the class-room nearest the beginning of the system, the warmest rooms are those near the end of the system. It is significant that the room noted as an exception is the only one where the pipes are covered and packed on the upper surface; and I suggest that this packing, by preventing loss of heat from the upper surface of the pipes leaves more heat available for the class-room below.

"The second defect noted is that on many cold days the temperature at 9 a.m. is too low. To take two examples, on Jan. 20th and Feb. 23rd, the 9 a.m. temperature was 40°; on each of these occasions there had for some days previously been minimum outdoor readings of from 18° to 27°, but it is not until Monday morning that the low temperature of 40° is recorded. A study of the temperature records shows that in nearly all cases the low peaks of temperature occur on Monday mornings. This indicates, not a defect in the system, but failure to operate it correctly, and I suggest that this weekly drop in temperature is due to the fact that the boiler is not stoked late enough on Sunday night. This also explains the nightly drop in temperature for with the rooms closed at night one would expect to find a higher temperature at 9 a.m. than at 2 p.m., when the windows are open. This difficulty of operation will be overcome when the caretaker resides on the premises, and can stoke the furnace later at night and give it more attention at the week-end.

"I conclude then that the system in operation at Harlescott has overcome most of the difficulties found with other heating systems, and that such defects as there are can be remedied by more judicious use of the ventilation and by installing a resident caretaker."

Meals for School Children.

The health of the children is likely to be improved by arrangements whereby a really good meal can be provided in the school during the middle of the day, and at the present time the problem of how to do this is being dealt with in individual schools to varying extents by different methods. The number of schools in which a good, hot meal is provided is not large, but in many schools something is being done as a result of the initiative of the head teachers, and full credit and every encouragement should be given to those who try to provide for the needs of the children in this respect.

Milk.

In 41 schools a regular supply of milk is now being supplied in bottles containing a third of a pint at a cost of 1d. This is usually consumed in the middle of the forenoon, and as milk is the very best form of food obtainable, the needs of the children are up to a point met in this way. In a larger number of schools a hot drink, usually consisting of cows' milk modified in some way and sold under a trade name, is given to the children. Although this last is all to the good and

many children prefer such a drink to one consisting entirely of cows' milk, it ought to be clearly understood that the chief nutritive value of these preparations lies in the cows' milk which they contain. As, however, pure milk is the most nutritious form of food obtainable, when a satisfactory supply can be provided for the children its consumption should be encouraged rather than that of some modified form of it. *The purchase of cows' milk in modified form is an expensive and uneconomic method of obtaining it.*

The Local Education Authority is taking every opportunity of encouraging the consumption of milk by school children, and it is hoped that, if the habit of drinking milk is acquired during school life, it will be continued after the school age has been passed, as, although milk is absolutely necessary for the health of a growing child, it is only a little less important in the case of an adult. While the standard of cleanliness of milk production in this country is gradually, but unfortunately very slowly, being raised, *it ought to be understood that, if the consumption of milk is to be encouraged, the farmers must do their utmost to give a sound, clean article in return.* Milk is recognised as one of the ways by which tuberculosis can be spread, and although the advantages to health of milk consumption outweigh the risk of disease which might possibly be conveyed in it, health authorities cannot whole-heartedly encourage its consumption unless the producer takes every step to ensure that it is a safe food for the child population.

The arrangements for securing a daily supply of milk to the schools is left to the Head Teachers, who are not, of course, in a position to know whether the milk provided is of a satisfactory standard of cleanliness. It is not too much to ask the farmers who supply the milk to guarantee that it is at least of Grade A standard in this respect, and it is hoped to obtain this guarantee by securing that all producers of milk who supply the schools will either be holders of a licence to produce a graded milk, or that they will be on the Accredited Milk Producers' Register of the Agricultural Department. The only names allowed to remain on this register are those of producers whose milk is consistently of a Grade A standard of cleanliness. Unfortunately the number of farmers whose names are on the Accredited Milk Producers' Register is not sufficiently large to enable the Head Teachers to arrange in all cases for the milk supplied in the schools to be obtained from such a source, and the question arises whether the Local Education Authority ought not to disapprove of milk supplied to children during school hours which does not carry with it some such guarantee of cleanliness. In order to promote this where possible the following letter was sent to the Head Teachers of those schools in which milk is supplied by a producer not on the Accredited Milk Producers Register :—

" Dear Sir or Madam,

It is with satisfaction that I note that you have made arrangements whereby a daily supply of milk is provided for those children in your school whose parents desire them to have it. With the object of securing a guarantee of the cleanliness of the milk provided for school children, the following resolution was passed by the Education Committee, namely :—

> ' That Head Teachers be advised not to enter into a contract with a milkseller unless the milkseller is either a producer of a Graded Milk or is on the Accredited Milk Producers' Register.'

" Everyone whose name is on the Accredited Milk Producers' Register of the County Agricultural Department has to conform to certain conditions, to produce milk of a certain standard of cleanliness, and to allow samples to be taken regularly for bacteriological examination. It is a register in which I consider the name of every milk producer in the County should be, unless he is already producing a Graded Milk under licence. I should be glad, therefore, if you would approach the retailer from whom you get your milk for the school children, and point out to him that the Education Committee do not consider your present arrangement *entirely* satisfactory, and that unless his name is entered in the above register it will be necessary for you to try to make other arrangements to secure milk for the children.

" I wish to make it quite clear that I am extremely desirous that the consumption of milk should go on, that I hesitate to write about the matter lest by so doing the milk supply should be stopped, but that in the absence of any regular bacteriological examination of the milk there is no guarantee that it conforms to the necessary standard. I am sure you will agree with me that milk supplied by arrangement through the Head Teacher to school children should, when possible, carry with it a guarantee of quality and cleanliness.

" If the quantity of milk supplied to the school is trifling, and is provided by the milk-seller more as a favour than anything else, it may be difficult, if not impossible, to comply with the above resolution ; but where a milkseller is really anxious to sell this milk to the school children, I think he ought to take steps to get his name on the Accredited Milk Producers' Register of the County Agricultural Department."

EDUCATIONAL WORK OF MEDICAL OFFICERS AND OTHERS.

The most effective form of Education in matters pertaining to health, as probably in other things, can be provided by a practical demonstration ; and for this reason it is particularly desirable that the hygienic condition of the schools should be of the highest standard obtainable.

In addition to the instruction which the children receive from the teachers in health matters as part of the school curriculum, addresses are given by the Assistant School Medical Officers when they visit the schools, when time and opportunity allow. This important branch of the work is capable of much further development.

Summary of Assistant Medical Officers' Addresses to School Children.

Dr. Blake..	36 lectures.
Dr. Harris	18 ,,
Dr. Proctor	12 ,,
Dr. Weston	11 ,,
Dr. Priestley	9 ,,
Dr. Evans	1 ,,
Total number of lectures ..	87

FINDINGS OF MEDICAL INSPECTION.

During the year, 171 schools were visited once only, 116 twice, and 35 three times, while 8 were not visited. This represents a total of 508 medical inspections as opposed to 515 during the previous year. Although seven fewer medical inspections were carried out, there was an increase of 860 in the number of children who underwent routine examination.

The following are particulars of the number of children who underwent medical examination by the Assistant School Medical Officers :—

	Routine Examinations.			Special		
	Aged 5.	Aged 8.	Aged 12.	Cases.	Re-examinations.	Total.
Dr. Harris	648	633	515	193	2,883	4,872
Dr. Blake	711	663	707	248	2,458	4,787
Dr. Weston	627	627	627	156	1,644	3,681
Dr. Priestley ..	470	519	488	31	1,897	3,405
Dr. Proctor	493	634	661	150	1,323	3,261
Dr. Evans	422	420	328	65	814	2,049
Totals for 1932 ..	3,371	3,496	3,326	843	11,019	22,055
Totals for 1931 ..	3,313	3,568	2,452	1,054	12,002	22,389

The school nursing is done by 2 whole-time school nurses, 10 health visitors, part of whose time is devoted to school nursing, 87 district nurses working for Associations connected with the Shropshire Nursing Federation, 1 nurse employed by an unaffiliated association, and 2 nurses working on their own account.

The apportionment of the children amongst the nurses is as follows :—

District Nurses acting as School Nurses	16,447
Whole-time School Nurses	5,175
Health Visitors	6,452
Nurses working on their own account	2,016
Health Visitors and District Nurses jointly	210

Pediculosis.—Although this branch of the school medical service is peculiarly that of the school nurses, it is convenient to include it under the findings of the school medical inspection work.

The instructions given to the school nurses are to examine the heads of the children each term, and to follow up the verminous children by making subsequent inspections in order to get them clean before the end of the term. The inspection in each term is begun *de novo*, so that there are three primary inspections in each year. Proceedings in connection with the radically verminous children, who are the source of the trouble, should be *commenced at the beginning of the term*, instead of waiting until the third inspection, as these children should now be well known. It is the policy to give every assistance and advice before prosecuting, and summonses are only issued as a last resort. There can be no doubt, however, that prosecutions are an essential part of any scheme for getting the children's heads clean, as, without them, the really careless and dirty people will continue to be dirty and verminous, and will be a constant danger to the clean part of the school. Legal proceedings were taken in 5 cases during 1932, and in 14 cases during the previous year, fines ranging from 5/- to 10/- being imposed.

During the year the percentage of children found verminous on primary inspection was 4.4, a decrease of 0.1 per cent. on the previous year. The percentage of verminous heads for 1932 is therefore the lowest which has yet been recorded. The following are the particulars :—

Year	Percentage verminous.	Year	Percentage verminous.
1920	14.0	1926	6.4
1921	12.3	1927	5.7
1922	9.9	1928	5.4
1923	9.0	1929	5.6
1924	8.0	1930	4.9
1925	7.5	1931	4.5
		1932	4.4

The following are the particulars of the primary and following-up inspections during the years 1931 and 1932 :—

	No. of Primary Inspections.	No. of Children.	No. Verminous.	Percentage Verminous.
1931	1111	86571	3975	4.5
1932	1142	88030	3856	4.4

Below are details of the findings at subsequent inspections in the case of those found verminous at the first inspections :—

	No. of following-up inspections.	No. verminous at inspections.			
		Second.	Third.	Fourth.	Fifth.
1931 ..	1628	2183	811	256	57
1932 ..	1602	2101	640	184	32

Defects of Nose and Throat.—Of the 10,193 children belonging to the code groups who were examined, 553 or 5.4 per cent. required treatment on account of diseases or defects of the throat and nose. Inclusive of special cases, there were in all 1,581 children who were found at medical inspections during the year to be suffering from defects of the throat and nose, of whom 641 required treatment, 940 being kept under observation. Of those recommended for treatment, some required removal of tonsils only, others of adenoids, and some of both. The following are the particulars :—

	Tonsils only.	Adenoids only.	Tonsils and Adenoids.	Total.
1929 ..	576	94	388	1058
1930 ..	529	70	368	967
1931 ..	607	73	439	1119
1932 ..	342	53	235	630

Tuberculosis.—Cases of tuberculosis amongst school children are discovered by the Medical Inspectors, either in the course of ordinary routine inspection or by the examination of cases specially referred to them by teachers or school nurses. In addition, all school children who come from homes in which a case of phthisis has been diagnosed are the subject of special examination at each medical inspection. Of 523 children from phthisis homes, 438 were examined by the medical inspectors, and 4 suspected cases were referred to the Tuberculosis Officers for further examination.

The particulars regarding the total number of school children referred to the Tuberculosis Officers from all sources during the year are as follows :—

		Pulmonary Tuberculosis.			Other forms of Tuberculosis.	
	No. of Children.	No physical signs.	Suspected.	Diagnosed.	Diagnosed.	Suspected.
New Cases	177	132	5	3	30	7
Cases from previous years ..	56	21	3	7	23	2

Ringworm.—When authorised by the School Medical Officer, children suffering from ringworm are now admitted to school, if the parent undertakes to carry out certain stringent precautions. It is also an essential condition of admission that the teacher shall undertake to see that the precautions are carried out.

Of the children examined by the Medical Inspectors, 7 were found to be suffering from ringworm of the scalp. In addition, 127 cases were notified by the teachers, although these were not usually based on medical opinion.

Eye Defects.—There were 621 children with defective eyesight or squint requiring treatment, and 125 with lesser degrees of defect that needed to be kept under observation. Of the children requiring treatment, 540 belonged to the code groups, and 81 were special cases. As children aged 5 are not systematically examined for defective eyesight, the code group cases are mostly aged 8 and 12, and the percentage amongst these children needing treatment was 7.0.

The following table shows the percentage of children at the age of 12 requiring treatment for eye defects since the war :—

Year	Percentage of defects.	Year	Percentage of defects.
1919	10.0	1926	7.3
1920	10.2	1927	7.9
1921	8.5	1928	8.1
1922	7.6	1929	9.0
1923	7.5	1930	8.9
1924	8.2	1931	6.5
1925	7.9	1932	7.0

Ear Disease and Hearing.—Experience has shown that a large number of cases of deafness and otorrhoea are due to an attack of an acute infectious disease, such as measles or scarlet fever, or to throat affections, but especially to the presence of unhealthy tonsils and adenoids. Thirty-five routine cases and 16 special cases were referred for treatment either on account of deafness or otorrhoea, or both. The figures for the previous year were, 71 routine cases and 22 special cases.

Dental Caries.—A considerable amount of research work has recently been carried out with a view to ascertaining to what extent the absence of certain vitamins in the diet may be considered a predisposing cause of dental caries ; and the publication of the results of this work has seemed to show that diets deficient in vitamin content lead to the formation of teeth structurally faulty and therefore much more liable to dental caries.

Whether this be so or not, in drawing conclusions from this work it is extremely important to recognise that, whatever effect a vitamin deficient diet may have as a factor contributary to dental caries, its importance pales into insignificance as compared with the effect of dental uncleanliness. Even a faultily formed tooth can be protected against caries if dental hygiene, as advocated in this county for many years, be carefully observed ; and no amount of vitamins in the diet can save even an absolutely normal tooth if it be subjected to the effects of carbohydrate fermentation which is the direct and immediate result of dental uncleanliness.

There has been too great a tendency in recent years to stress the part played by vitamins in the maintenance of health to the exclusion of much more important factors, and if the impression be gained, as in certain instances appears to be the case, that dietary deficiencies are the main cause of dental caries, the real and direct cause is liable to be obscured, if not entirely overlooked.

There has been a great improvement in the condition of the teeth of the population of this county, due in large measure to strenuous and persistent propaganda concerning the importance of dental hygiene in preventing dental caries, and it would be very unfortunate if, as a result of erroneous ideas concerning the relative importance of the factors contributing to this condition, there should be failure to maintain the progress which has already been made in a matter so vital for the promotion of health.

The following tables show percentages of dental caries at the various age periods amongst the children examined. These percentages of decayed teeth found by the School Medical Inspectors correspond fairly closely with those given by the School Dental Officers.

RESULT OF ROUTINE INSPECTION BY THE MEDICAL AND DENTAL OFFICERS.

	Age 5.			Age 8.			Age 12.		
	No. of children Examined.	Average No. of decayed teeth per child.	Percentage of children free from caries.	No. of children Examined.	Average No. of decayed teeth per child.	Percentage of children free from caries.	No. of children Examined.	Average No. of decayed teeth per child.	Percentage of children free from caries.
Dr. Blake	484	4.8	20	622	4.1	11	713	1.7	34
Dr. Evans	314	3.1	26	374	2.1	28	319	1.2	45
Dr. Priestley	386	4.6	14	492	3.5	14	492	1.7	32
Dr. Weston	393	4.1	20	535	4.2	11	599	1.8	36
Dr. Harris	517	2.5	34	596	2.2	29	509	1.3	41
Dr. Proctor..	309	2.9	27	504	2.1	35	568	1.0	55
	2403	3.7	24	3123	3.1	21	3200	1.5	40
Dental Officers		3.6	20		3.2	15		1.8	24

The following table gives in detail the results of inspection by the School Dental Officers of children of all ages :—

Age	Under 5	**5**	6	7	**8**	9	10	11	**12**	13	14
Average number of teeth decayed ..	3·3	**3.6**	3·5	3·4	**3.3**	2.4	2.1	2.1	**1.8**	1.9	2.0
Percentage of children free from caries ..	29	**20**	15	15	**15**	16	19	22	**24**	26	25

In stating the average number of teeth decayed, extracted and filled teeth are counted as decayed teeth. These figures therefore, do not give quite an accurate representation of the actual condition of the mouths of the children, inasmuch as a child's mouth usually has been put into an absolutely healthy and satisfactory condition by means of extractions and fillings, yet each of these has, for statistical purposes, been counted as a tooth showing dental caries. It will be observed that between the ages 5 and 12 the average number of decayed teeth per child gradually diminishes and that the percentage of children free from active caries steadily increases between these ages.

Average number of decayed teeth per child found by the Medical Inspectors in the years 1919—1932 :—

Year	*Age* 5.	*Age* 8.	*Age* 12.
1919 ..	2.1	3.6	2.1
1920 ..	2.16	3.8	2.1
1921 ..	2.5	3.5	1.9
1922 ..	3.0	3.6	1.7
1923 ..	3.4	3.6	1.7
1924 ..	3.0	3.3	1.6
1925 ..	3.1	3.4	1.6
1926 ..	3.0	3.3	1.5
1927 ..	2.7	3.4	1.6
1928 ..	2.8	3.1	1.5
1929 ..	2.9	2.8	1.5
1930 ..	3.2	2.7	1.8
1931 ..	3.8	3.1	1.6
1932 ..	3.7	3.1	1.5

Crippling Defects.

The numbers of these defects found at the routine medical inspections were :—rickets 42, spinal curvature 94, other forms 259. Probably the most common of school deformities are knock knee, flat foot and spinal curvature. A very close relationship has been observed between these conditions, often all found in the same child, and the presence of unhealthy tonsils and adenoids.

The cases of school children admitted to the Shropshire Orthopaedic Hospital have been analysed in accordance with causation, and show that :—

21	cases or	30.4	per cent.	were due to	Tuberculosis.
9	,,	13.0	,,	,,	Nerve Disease and Injuries.
7	,,	10.1	,,	,,	Osteomyelitis.
5	,,	7.2	,,	,,	Spinal Curvature—Non-tubercular.
5	,,	7.2	,,	,,	Fractures and Dislocations.
4	,,	5.8	,,	,,	Claw Foot.
3	,,	4.3	,,	,,	Arthritis (Septic and Rheumatoid).
3	,,	4.3	,,	,,	Congenital Deformities.
2	,,	2.9	,,	,,	Club Foot.
2	,,	2.9	,,	,,	Torticollis.
2	,,	2.9	,,	,,	Rickets.
2	,,	2.9	,,	,,	Diseases of the Hip—Non-tubercular.
1	,,	1.5	,,	,,	Flat Foot.
1	,,	1.5	,,	,,	Conditions due to faulty footwear.
1	,,	1.5	,,	,,	Injuries to hands.
1	,,	1.5	,,	,,	Exostoses.

This classification of cases in accordance with causation is extremely instructive, as most of the conditions here mentioned are comparatively easily cured if got under treatment at the very beginning of the disease. It is particularly important to obtain early treatment for cases of poliomyelitis, rickets, congenital deformities and tuberculosis. Many of the tuberculous cases come under notice after considerable damage has been done, the cause of the trouble not having been recognised in the early stages. The paralytic conditions arising from childbirth are possibly also largely preventable.

Goitre.—In Shropshire simple goitre is not common amongst school children, but it is more common in girls than in boys, especially in the later years of school life.

	Boys.			Girls.			Total.
	Entrants.	Inter.	Leavers.	Entrants.	Inter.	Leavers.	
No. of children ..	1781	1795	1688	1590	1701	1638	10193
Cases of goitre ..	1	3	15	1	7	35	62

Dull and Backward Children.—The examination and re-examination of cases of retardation amongst school children takes up a very considerable amount of time of the School Medical Inspectors, especially when the question of certification of mental deficiency has to be decided upon, although the examination of backward children is always tedious and difficult. During the year there were 289 new cases of retardation, the degree of retardation varying from one to five years. The following analysis of the causes of retardation is of interest in that it shows the relative importance of the various factors commonly found to account for backwardness in school children.

Causes of Retardation.	No. of children.	Degrees of retardation expressed in years.					
		1 year	2 years	3 years	4 years	5 years	Not stated.
Innate dullness	230	10	156	60	4	..	..
Insufficiency of Education ..	10	1	7	2	..	..	..
Physical defects..	11	3	5	2	..	..	1
Suspected Mental Deficiency ..	13	..	4	4	2	1	2
Mental Deficiency	13	..	3	4	5	1	..
Bad Home Conditions	9	3	6	..	..	..	..
Laziness	2	..	2	..	..	..	..
No Diagnosis	1	..	1	..	..	..	..
	289	17	184	72	11	2	3

In addition, 1,192 children, diagnosed as dull and backward in previous years, were re-examined, the findings in connection with whom were as follows :—

Backward, but not improving	594
Backward, but improving	441
Doubtful cases of mental deficiency	47
Mentally defective	82
Now normal	28

INFECTIOUS DISEASES.

Notifications.—The following notifications were sent in during the year by the *Head Teachers* :—

Coughs and Colds	4,086	Ringworm	127
Influenza	3,944	Diphtheria	110
Measles	1,541	Scarlet Fever	96
Mumps	1,245	Other Diseases	70
Chicken-pox	960	Conjunctivitis	50
Whooping Cough	815	Bronchitis	41
German Measles	723	Tonsilitis	23
Sore Throat	324	Scabies	19
Impetigo	195	Pneumonia	9

Certificates of Exclusion.—Under Article 20 (*b*), 1,120 certificates of exclusion from school on account of infectious disease and other conditions were sent in by the *Assistant School Medical Officers and Tuberculosis Officers,* of which the following are the particulars :—

Impetigo	119	Bronchial Catarrh	25
Contacts with Diphtheria	10	Rheumatism	33
Coughs and Colds	87	Suspected Phthisis	18
Sore Throat	21	Whooping Cough	33
Tonsilitis	43	Measles	8
Debility	111	Otorrhoea	17
Bronchitis	59	Chorea	27
Scabies	26	Mumps	19
Influenza	65	Tubercular Peritonitis	4
Tuberculous Glands	28	Chicken-pox	10
Heart Conditions	13	Anaemia	20
Ringworm of Body	25	Diagnosed Phthisis	4
Ringworm of Scalp	8	Diphtheria	3
		Various Conditions	284

Closure of Schools.—During the year 37 schools were closed by the Education Authority to prevent the spread of infectious disease. There is, of course, no justification for closing a school unless the spread of infection is thereby going to be prevented, and the School Medical Officer has no authority to advise closure on account of poor attendance, notwithstanding the fact that the number of children present is sometimes so low that there seems little justification for keeping the school open. Below are given particulars of the closure of schools on account of outbreaks of infectious disease :—

Measles	25
Diphtheria	10
Coughs and Colds	1
Whooping Cough and Measles	1

In twenty-three instances attempts were made to prevent outbreaks of measles by closing the schools for about a week, six or seven days after the occurrence of the first case, with the following result :—

In 12 instances no further cases occurred. Closure in these cases must therefore be considered to have been without effect and, therefore, unnecessary.

In 4 instances cases occurred during closure, and further cases developed on re-opening. Closure again proved to be without effect.

In 5 instances no cases occurred during closure, but one or more cases developed on re-opening, Again closure did not justify itself.

In 2 instances cases occurred during the closure, and did not attend school till free from infection. There was no further outbreak, and it is justifiable to conclude that closure was effective in checking the spread of the disease.

It must be recognised that all the schools closed to prevent the spread of measles were very carefully selected, in that they were in sparsely populated country districts in which most of the homes of the children were widely separated ; yet in only two instances out of twenty-three did the result justify the step. In numerous other schools no attempt was made to prevent the spread of infection by closure, as it was apparent from the commencement that its effect must be to prolong and possibly intensify the severity of the outbreak.

FOLLOWING-UP.

The whole of the following-up, except such assistance as is given from time to time by the Attendance Officers, is done by the School Nurses, who are notified of the dates of the medical inspections and are always present at the time of the visit of the Medical Inspectors to the schools, unless, as occasionally happens, they are detained elsewhere because of some more urgent matter in connection with their work. The following statement shows how cases recommended for treatment are visited and gives particulars of the number of visits paid :—

	No. of cases.	No. not visited.	Total visits.
District Nurses (88)	2555	301	5871
Nurses working on their own account (2) ..	274	73	652
Whole-time School Nurses (2)	742	74	2109
Whole-time Health Visitors (10)	1009	156	1667
Total ..	4580	604	10299

Facilities for Treatment Provided by the County Council.

The following arrangements have been made to provide treatment for school children at hospitals and at clinics held in the County :—

At Hospitals :—

Eye Defects—Eye, Ear and Throat Hospital, Shrewsbury ; Worcester Eye Hospital.
Ear Defects—Eye, Ear and Throat Hospital, Shrewsbury.
Throat Defects—Eye, Ear and Throat Hospital, Shrewsbury ; Kidderminster Infirmary, The Lady Forester Hospitals at Broseley and Much Wenlock ; Oswestry, Wellington, Whitchurch, Ellesmere, Chirk, and Shifnal Cottage Hospitals.
Orthopaedic Conditions—Shropshire Orthopaedic Hospital.
Pulmonary Tuberculosis—King Edward VII. Memorial Sanatorium, Shirlett ; Prees Heath Sanatorium.

At Clinics :—

School clinics for minor ailments are held at Bridgnorth, Dawley, Ellesmere, Ludlow, Ironbridge, Market Drayton, Newport, Oakengates, Oswestry, Wellington and Whitchurch. These are attended daily by the school nurses, and are visited once a week by the Assistant School Medical Officers, with the following exceptions :—Newport, which is held daily but is only visited fortnightly by the medical officer, and Ellesmere, which is held fortnightly.

Eye Clinics are held from time to time at Bishop's Castle, Bridgnorth, Highley, Shifnal, Ellesmere, Ironbridge, Cleobury Mortimer, and Whitchurch, and attended by an Assistant School Medical Officer.

An Eye Clinic at Oswestry is held occasionally and attended by a general practitioner with special experience in eye work.

Eye Clinics attended by specialists are held weekly at Ludlow, and occasionally at Market Drayton.

Orthopaedic Clinics, attended by the staff of the Shropshire Orthopaedic Hospital, are held weekly at Bridgnorth, Dawley, Ironbridge, Ludlow, Market Drayton, Oakengates, Oswestry, Shrewsbury, Wellington and Whitchurch, and fortnightly at Ellesmere, Newport and Wem.

Tuberculosis Clinics are held at Bridgnorth, Ludlow, Oswestry, Shrewsbury, Wellington, and Whitchurch.

X-Ray treatment for ringworm is provided at a clinic in Birmingham by special arrangement with the Birmingham Education Authority.

Skin Disease.—In addition to 850 children treated at the County Council School Clinics, particulars of which are given on p. 22, two cases were sent to Birmingham for X-Ray treatment for ringworm.

Tuberculosis.—Five school children suffering from phthisis were admitted to the Shirlett Sanatorium during the year, and three to Prees Heath Sanatorium. Other forms of tuberculosis were dealt with at the Shropshire Orthopaedic Hospital, and are included in the particulars given below.

Crippling Defects and Orthopaedics.—The following is a summary of cases treated at the Shropshire Orthopaedic Hospital during 1932, and paid for by the Public Health and Medical Inspection Committees :—

Disease.	Under 5 years of age.	5—16 years of age.	Over 16 years of age.	Total.
Tuberculosis of Bones and Joints ..	6	21*	26	53
Diseases and Injuries of the Nerves ..	3	9	..	12
Osteomyelitis	..	7	..	7
Congenital Deformities	4	3	..	7
Fractures and Dislocations	1	5	..	6
Spinal Curvature—Non-tubercular ..	..	5	..	5
Claw Foot	..	4	..	4
Rickets	2	2	..	4
Torticollis	1	2	..	3
Arthritis (Septic and Rheumatoid) ..	..	3	..	3
Club Foot	1	2	..	3
Diseases of the Hip—Non-tubercular	..	2	..	2
Flat Foot	..	1	..	1
Conditions due to faulty footwear ..	..	1	..	1
Injuries to Hands	..	1	..	1
Exostoses—both feet	..	1	..	1
Total for 1932 ..	18	69	26	113
Total for 1931 ..	22	93	37	152

* Includes 5 Shrewsbury Borough School Children.

In addition to those treated in the Orthopaedic Hospital during the year, a much larger number of cases received treatment at the various After-Care Centres. Some of these cases had already received in-patient treatment at the hospital but, having completed this part of their treatment and having been discharged, continued to receive further treatment as out-patients at the After-Care Centres. A much larger number of patients had, however, never received hospital treatment ; and, the orthopaedic defect being only of a minor nature, owing in many instances to early detection, it had been found possible to give the necessary remedial exercises or other simple forms of treatment at the After-Care Centres, thus obviating the necessity for in-patient treatment at the hospital. A large amount of the treatment carried out at the After-Care Centres is, therefore, largely and very profitably preventive, and in this way the great majority of cases in this county are never allowed to develop orthopaedic defects so pronounced as to necessitate in-patient hospital treatment. The School Nurses and Health Visitors are encouraged to work in close co-operation with the Orthopaedic After-Care Staff in order to ensure the carrying out of such daily exercises as are necessary, and as a result of this combination and co-ordination of effort it can be stated that there are in the County of Salop very few people suffering from serious and irremediable crippling defects.

Full particulars of the patients attending the Orthopaedic Clinics are given in the tables facing this page, but the following is a summary of the work carried out at these centres during 1932 :—

No. of attendances	11,176*
No. of patients treated	1,987
No. on the books on 1st January	1,340
No. on the books on 31st December	1,362
No. of new cases	647
No. of cases discharged	625

In addition, 95 cases were examined and no treatment found necessary.

* 1,678 under five years ; 5,962 five to sixteen years ; 2,320 over sixteen years, and 1,216 tubercular cases—all ages.

Eye Defects.—Sixteen children received hospital treatment for external eye defects, and 1,211 were treated for defects of vision, particulars being given below :—

Hospital or Clinic.	Number of Children seen.	Glasses prescribed	Glasses obtained.	No change of Glasses ordered.	Other treatment.	Visit to Salop Hospital advised.	No Glasses or treatment necessary.
Salop Eye, Ear and Throat Hospital	659	480	478	100	35	..	44
Ludlow Eye Clinic	217	166	165	32	5	..	14
Oswestry Eye Clinic	89	82	82	3	..	1	3
Market Drayton Eye Clinic ..	49	38	38	7	..	..	4
Assistant School Medical Officer at Whitchurch Eye Clinic ..	73	54	53	15	..	1	3
Bridgnorth do. ..	32	22	21	4	..	1	5
Bishop's Castle do. ..	13	9	9	..	..	..	4
Highley do. ..	12	5	5	1	..	1	5
Ellesmere do. ..	37	27	27	6	..	..	4
Shifnal do. ..	13	4	4	2	..	3	4
Ironbridge do. ..	17	14	14	..	..	..	3
Totals for 1932 ..	1211	901	896	170	40	7	93
Totals for 1931 ..	1253	919	911	186	49	5	94

Ear Disease and Hearing.

Hospital.	Number of Children seen.	Received Treatment.				No Treatment necessary.
		Remedied.	Improved.	Not improved.	Not known.	
Salop Eye, Ear and Throat Hospital ..	41	15	17	9	..	..
Totals for 1931 ..	55	22	27	5	..	1
,, 1930 ..	59	18	34	5	1	1
,, 1929 ..	55	15	29	8	..	3

A number of these children required treatment for deafness and otorrhoea as a consequence of unhealthy tonsils and adenoids, treatment for which had previously been refused.

Diseases of the Nose and Throat.—Sixteen children suffering from purely nasal conditions were seen at the Salop Eye, Ear and Throat Hospital, and 13 were found to require treatment. The commonest conditions, however, which necessitated hospital treatment were unhealthy tonsils and adenoids, particulars of which are as follows :—

Hospital.	Number of Children seen.	Operated on.	Other treatment.	No treatment necessary.
Salop Eye, Ear and Throat Hospital ..	175	173	1	1
Broseley and Wenlock Hospitals ..	73	73	..	..
Oswestry Cottage Hospital	66	66	..	..
Ellesmere Cottage Hospital	13	13	..	..
Kidderminster Hospital	13	13	..	..
Wellington Cottage Hospital	231	231	..	..
Chirk Cottage Hospital	10	10	..	..
Shifnal Cottage Hospital	25	25	..	..
Whitchurch Cottage Hospital	28	28	..	..
Totals for 1932 ..	634	632	1	1
Totals for 1931 ..	833	833	..	..
Totals for 1930 ..	792	790	2	..

In addition to the above, 62 cases were operated on under private arrangements, making a total for the year 1932, of 694 operations.

Reports received from the Medical Officers on 555 children who had undergone operative treatment for tonsil and adenoid conditions showed, on the whole, a very great improvement in the health of the children, although in a number of cases the tonsils and adenoids had not been completely removed. Below is given in tabular form a brief summary of these reports :—

No. with Tonsils and Adenoids.	No. with Tonsils only.	No. with Adenoids only.	Total No. of cases.	No. of cases completely dealt with.	Cases not completely dealt with.		
					Tonsils.	Adenoids.	Tonsils and Adenoids.
539	14	2	555	504	41	6	4

Effects of Operation upon Health.

	Cured.	*Improved.*	*Not improved.*
General Health	..	529	9
Mouth Breathing	435	77	7
Otorrhoea	15	2	2
Deafness	11	5	2
Nasal Discharge	9	19	1
Enlarged Glands	139	39	8
Minor Deformities	5	6	..
Rheumatism	1	..	..
Intelligence	..	10	1
Speech	..	5	2
Bronchitis	2	..	1
Chest Expansion..	..	9	..

School Clinics for Minor Ailments.

Table showing conditions for which treatment was received.

Defect or Illness.	Children referred at S.M.I.	Other Children.	Examinations by M.O.	Attendances.	Results of Treatment.		
					Remedied.	Improved.	Unaltered.
Skin :—							
Ringworm—head	6	36	99	491	40	1	1
Ringworm—body	3	45	59	249	44	3	1
Scabies	1	35	48	167	31	5	..
Impetigo	14	461	820	4206	453	15	4
Minor Injuries	10	794	1216	5648	781	14	6
Other skin diseases	10	234	295	1877	223	16	2
Ear Disease	32	190	348	2109	157	46	12
Eye disease (external and other)	37	253	399	1675	220	50	9
Verminous conditions	4	47	7	158	51	..	..
Tonsils and Adenoids	11	45	96	121	51	5	..
Other conditions	119	1653	2095	4869	1530	125	71
Total for 1931 ..	247	3793	5482	21570	3581	280	106
Total for 1930 ..	237	3844	6317	23691	3496	396	106

Table showing attendances at each Clinic.

Clinic.	Children referred at S.M.I.	Other Children.	Examinations by M.O.	Attendances.	Results of Treatment.		
					Remedied.	Improved.	Unaltered.
Bridgnorth	6	269	271	1860	271	3	..
Dawley	77	353	683	2347	396	30	4
Ludlow	12	352	317	2876	321	34	9
Ironbridge	11	376	652	1431	331	56	..
Market Drayton	24	333	664	2427	320	14	23
Newport	3	150	102	1017	133	17	3
Oakengates	6	831	1194	2974	799	36	2
Oswestry	41	518	461	2089	442	34	11
Wellington	56	405	318	1072	422	32	7
Whitchurch	11	206	820	3477	146	24	47
Totals	247	3793	5482	21570	3581	280	106
Total for all Clinics, 1922 ..	347	1126	..	8197	1172	238	62
,, ,, 1923 ..	312	1640	..	10034	1674	206	72
,, ,, 1924 ..	195	1540	..	11662	1402	235	77
,, ,, 1925 ..	244	2017	..	13020	1768	331	82
,, ,, 1926 ..	329	2507	..	13005	2211	444	93
,, ,, 1927 ..	405	2717	..	15158	2505	442	161
,, ,, 1928 ..	301	3006	..	18409	2537	560	174
,, ,, 1929 ..	211	3117	3831	17011	2792	357	120
,, ,, 1930 ..	311	3498	5944	24338	3133	454	153
,, ,, 1931 ..	237	3844	6317	23691	3496	396	106
,, ,, 1932 ..	247	3793	5482	21570	3581	280	106

Teeth.—The success or failure of the Dental scheme must depend upon the amount of sepsis removed and the number of permanent teeth saved, and not upon the refinements of dental treatment. Children of all ages in the schools are dealt with at each visit of the Dental Officer.

Not only are all ages dealt with, but the schools are now being visited on an average about once in nine months. This has been possible owing, partly and unfortunately, to the considerable number of refusals, but chiefly to the smaller amount of attention required as a result of previous treatment. The results of inspection and treatment are given in the tables at the end of the report.

Two schools were not visited during the year. All the remainder were inspected and, with five exceptions, were also treated during the year.

69 departments were treated twice during the year, and
12 schools were inspected twice, but the second treatment was not given until 1933.

The number of unsaveable permanent teeth is a measure of the imperfection of the dental scheme. It is very satisfactory that in 32,333 examinations of children, only 2,993 unsaveable permanent teeth were found, and 2,386 of these were due to refusal of treatment at the previous inspection. Only 607 can therefore be legitimately attributed to any shortcomings of the scheme. Of this number, 291 were due to lack of opportunity to complete the treatment of the mouth on the previous occasion, 56 were due to unusually long inter-inspection period, and only 260 were due to the fact that the caries was so rapid as to destroy the tooth in the ordinary inter-inspection period. These figures show that if there were no refusals, and no extra long periods between inspections, there would be very few permanent teeth destroyed. In the East of the County the total number of unsaveable teeth, apart from refusals, was only 12.

The difference between the number referred for treatment, including 984 cases brought forward from 1931, and the number treated was 6,148. The details are given in the following statement :—

	Refusals.	Absent on day of Treatment	Left School.	To be treated in 1933.	Treatment deferred.
East of County (Mr. Birch)	1009	216	37	734	..
South of County (Mr. Keenan) ..	953	149	15	213	82
North of County (Mr. Catchpole) ..	1950	147	28	604	11
Totals	3912	512	80	1551	93

It will be noted that there were 3,912 refusals of treatment. This is, however, considerably less than for the year 1931, when there were 4,589 refusals, and very much better than in 1930, when there were no fewer than 5,604 refusals. The diminution in the number of refusals is very encouraging, showing as it does that the value of the work of the School Dental Officers is becoming more fully appreciated by the parents. The following table shows the schools in which the percentage of consents was very high, and those in which it was very low. Each year the number of schools with over 90 per cent. of " consents " shows an increase, combined with a decrease in the number of schools with more than 50 per cent. of " refusals." During the year under consideration 52 schools had over 90 per cent. of consents as opposed to 49 in the previous year ; and similarly the number of schools with over 50 per cent. of refusals fell from 22 to 14 in the same period.

PERCENTAGE OF "CONSENTS" FOR TREATMENT.—SCHOOLS WITH 90 PER CENT. OR OVER.

Woodcote	100
Eyton	100
Quatford	100
Quatt	100
Dudleston	100
Eaton Constantine	100
Cleobury Mortimer Mixed	99
Astley Abbots	99
Acton Burnell	98
Adderley	98
Sutton Maddock	97
Loughton	97
Richard's Castle	97
Stanton-on-Hine-Heath	97
Melverley	97
Buildwas	96
Malins Lee C.E. Infants	96
Church Aston	96
Wrockwardine Wood Council Boys	96
Kinnersley	95
Donington	95
Ryton	95
Stockton Norton	95
Wombridge C.E. Boys	95
Wombridge C.E. Girls	95
Bishop's Castle Infants	95
Madeley C.E. Boys	94
Cardington	94
Atcham	94
Sheinton	94
Frankton	94
Longdon-on-Tern	93
Onibury	93
Bucknell	93
Brockton	93
Crudgington	92
Malins Lee Institute	92
Lilleshall Mixed	92
Donnington Wood C.E. Girls	92
Upton Magna	92
Wroxeter	92
Hayton	92
Asterley	92
Westbury Forest	92
Malins Lee C.E. Mixed	91
Hadley Council Girls	91
Culmington	91
Harley	91
Pant Glas	91
Madeley Methodist Mixed	90
Newport R.C.	90
Wentnor Stiperstones	90

SCHOOLS WITH NOT MORE THAN 50 PER CENT.

Alveley	50
Coreley	47
Kinlet	47
Neen Savage	47
Ash	47
Newtown	46
Holdgate	45
Prees Lower Heath	45
Wem Senior	45
Cressage	43
Whittington	39
Market Drayton Girls	38
Maesbury	38
Clee St. Margaret	35

OPEN AIR EDUCATION.

Playground Classes are encouraged, but they are held only in a comparatively small number of schools. Owing to climatic conditions such as we have in this country, it is unlikely that there will be any great development of open-air education until it is possible to give it by educating children in schools constructed on the open-air principle.

Residential Open-Air Schools.—There are always a certain number of children who are in a persistently poor state of health, not traceable to any definite physical defect but probably attributable in most instances to poor home circumstances, lack of proper food and unhygienic conditions. No form of purely medical treatment can be expected to restore them to normal health, and the only remedy would seem to be to get them removed to where there are better conditions of life, and where their physical requirements will be more adequately met. It is for such children that a period of residence in an open-air school is particularly beneficial.

The Local Education Authority maintains three beds for such children in open-air schools. These beds are not occupied continually by the same children, but carefully selected children are sent for a period of three months, when their places are taken by other children equally suitable.

Eleven children who were discharged during the year showed marked improvement in their general health as a result of their residence in the open-air school in the Isle of Wight, and in certain cases the improvement was very marked indeed. During the year ten children were admitted to Open-air Schools.

The number of children who are sent to open-air schools has, of course, to be limited, and the length of stay in the schools to be curtailed in order to make these special facilities available for as large a number as possible. The number of children in ordinary elementary schools who could benefit from a change to an open-air school very much exceeds the accommodation available, and if the requirements of this County were to be met, many more than three beds would need to be at the disposal of the Local Education Authority.

PHYSICAL TRAINING.

Proper food, good housing, fresh air and exercise are the primary factors which govern health, and by attention to these matters we strike at the root of disease. Measures directed to the early treatment of disease, or to the prevention of particular diseases, are of less importance and can never yield the same results. It is essential, therefore, that we should concentrate our energies more especially on general measures which are essential for the full growth and vitality of the great mass of school children, and of these a good scheme of physical instruction is one of the most important.

The work of the Organiser of Physical Training, whose report is given below, is developing along satisfactory lines, and is bringing about a gradual improvement in the general condition of the school population.

School Baths.—Arrangements have been made in Whitchurch, Oswestry, Wellington, Ellesmere and Bridgnorth whereby the older Elementary School Children in these areas are sent for swimming instruction once weekly, and the Organiser of Physical Training is giving special consideration to the utilisation of natural waters in country districts for teaching swimming.

The acquisition of playing fields is proceeding in various parts of the County. Arrangements have been made, either by acquisition or payment of rent, by which playing fields have now become available for the use of the scholars in the case of 59 schools.

These arrangements are not always entirely satisfactory, as difficulties sometimes arise as a result of the nature of the ground and sometimes also owing to distance from the school, both of which factors tend to lessen the advantages which would otherwise be obtained. Progress is, however, being made in this important matter and, if sometimes slow, it must be recognised that the difficulties which have got to be overcome are often very considerable.

The Organiser of Physical Training not only visits the schools in order to supervise and guide the teachers in this branch of their work, but also arranges special classes for teachers which are held in various parts of the County in the evenings and on Saturday mornings.

The following are particulars of the courses of instruction given to teachers during the year.

Centre.	Duration.	Class Hours.	No. of Students.		Percentage.
			M.	F.	
Shrewsbury	18th Jan.—21st Mar. ..	10	5	65	77·9
Newport	18th April—4th July	15	4	26	76.6
Bridgnorth	20th April—29th June ..	15	10	25	82.3
Shrewsbury	26th Sept.—5th Dec.	14½	19	20	79·7

Report of the Organiser of Physical Training.

Progress, generally, has been very satisfactory, and there is a steady improvement in the standard of work in most schools.

Senior Schools.—The work in these departments has made decided progress during the year, especially in those schools where a teacher with marked ability was appointed as " specialist."

All Senior departments have been supplied with some apparatus, such as gymnastic benches, mats, box horse, etc., and those schools which were not adequately supplied this year will receive consideration during the coming financial year.

A few of the Senior Boys' Departments, where good wood-work centres are established, are making some of their own apparatus. Not only does this mean a saving of expense, but the articles are valued more by the children.

Junior Schools.—In these schools the work is progressing on satisfactory lines, though some teachers need to be reminded that the physical training is not a whit less important than that in a Senior School. If the tables of exercises are carried out systematically there should be no real break between the departments. On the other hand the scheme of work in a Junior School should not be considered merely as a preparation for that in a Senior Department. It must be regarded as a complete scheme in itself, and be entirely satisfying to the natural demands of the Age Group for which it is intended.

Infant Schools.—A very encouraging spurt in progress has been made in most of the Infant Classes. This is due to the changes in teaching methods, as the children are now treated as individuals. The old type of lesson, when children followed each other round and round the playground, has gone, and instead the children are encouraged in the development of self-reliance and independence period. The increased provision of simple apparatus has done much to make the change of methods possible.

Swimming.—Very satisfactory progress was made during the year ; the number of certificates gained being thrice as many as during the previous summer. The certificates were designed and executed by Mr. Percy Ferriday, Headmaster of Lawley Council School, and sincere thanks are due to him for his interest and generosity.

The certificates are offered to children who can successfully pass the following tests :— 25 yards breast stroke, 25 yards on back without use of arms, 25 yards any other stroke they wish, and a good dive in the deep end of the bath.

Altogether 92 certificates were gained by children at the different swimming centres. One might reasonably expect fewer successes at the open-air baths, but it is not always so.

At two open-air centres the Organiser was asked to examine on the last days of the swimming season—it so happened that the ground was white with frost, and the real tang of autumn in the air, yet the children not only entered the water cheerfully, but won their certificates.

This would evidence that instruction in such wholesome activities not only develops the children physically, but produces a mental state when pluck and endurance becomes a natural habit.

Next year it is hoped that a report can be made on the opening of open-air swimming pools at Market Drayton and Claverley.

Organised Games.—Wherever it is possible to obtain the use of a field, games are organised and are practised with enthusiasm. Football and Cricket practices are arranged for boys, and Netball, Shinty, and Rounders for girls.

General.—The more intelligent understanding of correct postures, good walking and running, etc., as taught in Physical Training lessons, must influence the children's natural postural habits, and so in a very direct way, affect their general health. By attending Refresher Courses in their areas the teachers are gaining confidence in their own prowess, and in ability to teach and demonstrate the various activities. There is no doubt regarding the receptive attitude adopted by the teachers towards supervision and criticism of their work.

The Organiser wishes to acknowledge the co-operation of the teachers in all branches of Physical Training work in the County, and to express gratitude for their interest and help.

K. W. Davey,

Organiser of Physical Training.

CO-OPERATION OF PARENTS, TEACHERS, SCHOOL ATTENDANCE OFFICERS AND VOLUNTARY BODIES.

Parents.—A notice is sent to all parents inviting their presence at the routine medical and dental inspections, and a special effort is always made to get the parents of seriously defective children to attend.

Teachers.—In addition to routine help at medical inspection, teachers are asked to pay special attention to the attitude of the children in school in order to correct false positions, to see that the children wear spectacles when prescribed, and that children with visual and aural defects get the special treatment indicated. They also call the attention of the Medical Officers to any abnormalities they have noted in particular children whom they bring forward as special cases at the routine medical inspection. In addition, they exclude cases of suspected infections in accordance with directions, report exclusions, and distribute directions with regard to infectious disease to parents on certain occasions.

School Attendance Officers.—School Attendance Officers are present at the medical inspections when required, and are available for bringing up children who are absent and whose examination is considered desirable. They are also required to keep a strict lookout on children absent on account of verminous or skin conditions in order to see that the treatment prescribed is not neglected. In persistently verminous cases, where it is necessary to take legal proceedings and the nurse objects to appearing in court, they are always present at the final examination of the child, and are therefore able to give evidence when required.

The opportunities which they have of seeing whether children absent from school on medical grounds are getting treatment are often greater than the opportunities of the school nurse, and they are now instructed to report at once any such children who are absent and are apparently not receiving or carrying out treatment, so that they can be further investigated if necessary by the medical department.

Voluntary Bodies and Voluntary Helpers.

Most of the routine work formerly undertaken by voluntary helpers is now done by the school nurses, and where the school nursing is done by the District Nurse the Secretary of the Local Nursing Association is very frequently most helpful.

The Inspectors of the National Society for the Prevention of Cruelty to Children have been of great help in obtaining medical treatment where other means have failed, and in dealing with cases of gross neglect.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

The following table gives particulars of the numbers of exceptional children *examined during the year* by the Medical Officers.

	Certified suitable for Special School.	Notified to Local Authority as uneducable.	To be kept under observation.
Mentally Defective	76*	32*	49
Epileptic	5	..	1
Blind	..	..	..
Deaf and Dumb	5	..	..
Physically Defective ..	58	..	..

* 23 Imbeciles, 6 Idiots, and 3 feeble-minded uneducable children.

It will be observed that although 76 children were certified as mental defectives and found suitable for special schools, only two were admitted during the year, thus leaving 74 for whom no special provision was made. The reasons for their non-admission are as follows :—

Reasons for non-admission :—Parents' refusal	45
Too old	18
Awaiting vacancies	3
Found unsuitable	6
Under 7 years of age	2

The number of exceptional children admitted to special schools during 1932, *whether examined during that year or previously*, was—Blind 0, Deaf and Dumb 4, Epileptic 2, Mentally Defective 3, Physically Defective 74. In addition, the L.E.A. accepted responsibility for 2 cases already in schools for the Deaf and Dumb, whose parents came to reside in Shropshire during the year.

During the year 1932, the striking feature was the large number of mentally defective children attending the Public Elementary Schools. These to a considerable extent consisted of children who had been certified for a special school, but either their parents objected to their removal or they were considered too defective for admission. These children are now put under systematic supervision of the whole-time school nurses, and at the age of 16 are transferred to the supervision of the Health Visitors, although they cannot be notified formally to the Local Authority under the Mental Deficiency Act.

Orthopaedic Hospital and Special School.—The more serious orthopaedic cases are admitted to the Hospital on the recommendation of the School Medical Officer. The cases are discovered principally by the School Medical Officers and nurses, every effort being made to get the cases as early as possible.

Schools for the Blind and Schools for the Deaf.—In both these classes of schools accommodation is always found if the parents are willing for removal. Every effort is made to get these cases under early treatment.

Mentally Defectives.—The accommodation is not sufficient for the needs of the County, and would be grossly insufficient if all suitable cases were compulsorily removed. There are at present 16 children in Sandlebridge Special School and 1 at Monyhull Residential School from this County.

NURSERY SCHOOLS.

There are none of these schools in the County ; nor does the need for provision appear to be particularly urgent.

CONTINUATION SCHOOLS.—There are no Continuation Schools in the County.

EMPLOYMENT OF CHILDREN AND YOUNG PERSONS.

The children over 12 years of age in private employment come under the notice of the Assistant School Medical Officers at each visit to the schools.

If a Medical Officer considers that any of these employed children are not in a fit state of health to be employed outside of school hours, the facts are transmitted to the Secretary for Education for appropriate action to be taken.

SECONDARY SCHOOLS.

Medical inspection is carried out in 17 of the 19 Secondary Schools in the County. Five of the Secondary Schools are Aided Schools ; and of these Aided Schools three undergo medical inspection. As four of the Secondary Schools, namely, Bishop's Castle, Cleobury Mortimer, Bridgnorth Grammar and Coalbrookdale High School, are mixed schools, they have to be inspected by male and female medical officers. An effort is made to carry out an inspection in each school every term, and during the year all the schools were visited each term with four exceptions, where, owing to the small number of scholars due for examination in one term only two inspections were held. The number of children in attendance in Secondary Schools in the County in September, 1932, was 3,276, and the number of children on the registers of those secondary schools which undergo medical inspection was, on that date, 2,824.

No general arrangements have been made by the Local Education Authority for providing treatment for children in whom defects are found at routine medical inspections. If, however, a free place scholar is found to be in need of treatment for a visual defect and the parents are unable to secure the necessary treatment, the Local Education Authority undertake to provide facilities. In addition, dental inspection is carried out in Secondary Schools as in the case of Elementary Schools, and free dental treatment is provided for those scholars who have free places. The Orthopaedic After-care Centres are, of course, available for scholars from Secondary Schools just as for Elementary School children, but the Local Education Authority does not undertake to provide beds in the Orthopaedic Hospital in the case of the former. The parents of Secondary School scholars are not visited by school nurses, as is the case in Elementary Schools, in order to point out the necessity for treatment and urge the parents to take immediate steps to obtain it, and the whole question of securing treatment is left in the hands of the Head Masters and Head Mistresses, who write to the parents regarding any children for whom treatment has been advised by the medical inspectors.

The children who undergo routine medical examination at the visit of the medical inspector are entrants, children aged 12 and 15, and leavers. In addition, re-examination is carried out in the case of those children in whom some defect has been found at a previous examination, and progress is recorded on a treatment card till further examination on account of defects found is no longer indicated. The head master or head mistress also brings forward for special examination any children, not included in the groups mentioned above, in whose case there seems to be a condition or defect requiring medical attention.

Amongst Secondary School children treatment for defects of the grosser type is more readily obtained by the parents than amongst Elementary School children, but when a defect is of the minor type, a large number of those discovered in Secondary School children go untreated. This last is probably to be attributed partly to the fact that, after a medical inspection in an Elementary School, the homes of the children in whom defects have been found are visited by the school nurses, who point out to the parents the necessity for obtaining treatment at the earliest possible moment, and partly to the fact that facilities for treatment of children in attendance at elementary schools are provided by the Local Education Authority. As, however, about half of the children in attendance at Secondary Schools have free places, and therefore come from substantially the same class of home as the children in Elementary Schools, the considerations which make desirable the provision of treatment under County Council Schemes for children in attendance at Elementary Schools apply with at least equal force to about 50 per cent. of the children in attendance at Secondary Schools.

Below is given in tabular form particulars of the children examined by the medical inspectors.

A.— ROUTINE MEDICAL INSPECTIONS.

Age	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total.
Boys	..	..	2	7	12	11	55	122	179	26	29	137	15	15	7	4	..	621
Girls	..	8	5	3	8	24	61	146	230	42	47	179	37	26	21	6	..	843
Totals for 1932	..	8	7	10	20	35	116	268	409	68	76	316	52	41	28	10	..	1464
Totals for 1931	1	8	9	10	19	29	101	265	353	60	110	355	48	34	34	8	..	1444

	RE-EXAMINATIONS.	SPECIAL EXAMINATIONS.	TOTAL.
Boys	563	2	565
Girls	634	41	675
Totals for 1932..	1197	43	1240
Totals for 1931..	1179	36	1215

Defects Found and Treatment Received.

On page 40 are tables giving details of defects found, requiring either observation or treatment ; and below is given in convenient form for reference a summary of the defects, with a statement of the number of children found during the year by the medical inspectors to have obtained treatment for defects discovered at previous examinations.

	Defective Eyesight.	Tonsils & Adenoids.	Ear Conditions.	Skin Disease.	Orthopaedic Defects.	Other Conditions.	Total.
Defects discovered	138	34	14	7	68	43	304
Defects treated	145	20	13	5	96	5	284

Dental Inspection and Treatment.

During the year 1930, a commencement was made with a scheme for the provision of dental treatment for children in attendance at Secondary Schools. The scheme is virtually the same as that under which dental inspection and treatment is provided in Elementary Schools. All the schools in which medical inspection is carried out are visited by the Dental Officers, and all the scholars are inspected at each visit. Only those scholars, however, who have free places receive treatment under the scheme of the Local Education Authority. The parents of the other scholars are advised to obtain the necessary treatment through the agency of private dentists.

One school was not visited during the year, one school was inspected but the treatment was not carried out until 1933, and in 15 schools inspection and treatment was carried out once.

The findings of the School Dental Officers are given in the tables below, in which the condition of the mouths of free placers, fee paying and elementary school children are compared.

Average Number of Decayed Teeth per Child.

Age ..	7 and under.	8	9	10	11	12	13	14	15	16	17	18	Total
Free-placers			2.0	2.3	1.8	2.2	2.1	2.3	2.9	3.3	3.5	2.8	2.5
Fee-paying	3.5	3.4	2.7	2.4	2.3	2.3	2.2	2.9	3.6	3.8	4.0	5.5	2.8
Elementary		3.2	2.4	2.1	2.1	1.8	1.9	2.0					2.6

Percentage Free from Caries.

Age ..	7 and under.	8	9	10	11	12	13	14	15	16	17	18	Total
Free-placers				19	24	18	23	22	11	9	15	14	18
Fee-paying	9	12	21	19	17	24	23	17	14	16	20	0	19
Elementary		15	16	19	22	24	26	25					19

The method of compiling the statistics for the above tables is the same as that which has been employed in the Elementary Schools ever since the commencement of the school dental scheme, and it must be recognised that, while it gives an exact representation of the prevalence of dental caries, it does not give a true representation of the benefits and advantages and influence on health of the dental scheme as carried out in elementary schools. In calculating the average number of decayed teeth per child, not only is every decayed tooth actually present in the mouth of a child counted, but also every permanent tooth which has ever been extracted or filled. The same facts must be borne in mind when considering the percentage free from caries. It may well

be and very often is true that, as a result of extractions and fillings, the mouth of a child has been put into a perfectly clean and healthy condition, but for the purposes of these statistics such a child would still be counted as having a certain number of carious teeth. Even so, it will be seen that, while there is an average of 2.8 decayed teeth amongst the fee-paying children, there are only 2.5 amongst the free-placers, many of whom have quite healthy mouths; or, in other words, that the evidence of dental caries amongst fee-paying children, as compared with this condition in free-placers, is 12 per cent. greater.

On page 41 a statement is given in tabular form of the number of children inspected by the School Dental Officers in Secondary Schools, of the findings of these inspections, and of the number of free-placers who were actually treated by them. The following are the chief facts :—

	Fee-paying.	Free-placers.
Total No. of inspections	1373	1142
No. of children referred for treatment	664	601
No. of children actually treated	—	364

STATISTICAL TABLES—ELEMENTARY SCHOOLS.

Table I.—A—Routine Medical Inspections.

Number of Code Group Inspections—	
Entrants	3,371
Intermediates	3,496
Leavers	3,326
Total ..	10,193
Number of other Routine Inspections ..	0

B.—Other Inspections.

Number of Special Inspections	4,636
Number of re-inspections	13,072
Total	17,708

TABLE II.—A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDING 31ST DECEMBER, 1932.

Defect or Disease. (1)		Routine Inspections. No. of Defects. Requiring treatment. (2)	Routine Inspections. No. of Defects. Requiring to be kept under observation, but not requiring treatment. (3)	Special Inspections. No. of Defects. Requiring treatment. (4)	Special Inspections. No. of Defects. Requiring to be kept under observation, but not requiring treatment. (5)
Malnutrition		..	729	..	3
Uncleanliness		627	..	5	..
Skin	Ringworm—Scalp	3	..	..	..
	Ringworm—Body	6	..	2	..
	Scabies	11	..	2	..
	Impetigo	19	..	3	..
	Other Diseases (non-tubercular)	17	1	1	..
§Eye	Blepharitis	27	15	1	2
	Conjunctivitis	13	2	1	..
	Keratitis	1	..	..	..
	Corneal Opacities	..	2	..	..
	Defective Vision (excluding Squint	463	106	67	4
	Squint	77	15	14	..
	Other Conditions	10	3	2	1
Ear	Defective Hearing	11	8	7	..
	Otitis media	24	10	9	..
	Other ear diseases	1	1	..	..
Nose and Throat	Enlarged tonsils only	298	750	44	34
	Adenoids only	40	46	13	2
	Enlarged tonsils and adenoids	207	87	28	5
	Other conditions	8	15	3	1
Enlarged Cervical Glands (non-tubercular)		5	311	5	22
Defective speech		..	38	..	6
*Teeth, Dental Diseases		459	..	13	..
Heart and Circulation.	Heart Disease—Organic	4	99	..	7
	Heart Disease—Functional	2	50	..	2
	Anaemia	8	40	4	..
Lungs	Bronchitis	18	31	1	3
	Other non-tuberculous diseases	7	13	..	2
Tuberculosis	Pulmonary—Definite	1	..	..	..
	Pulmonary—Suspected	..	1	..	1
	Non-pulmonary—Glands	14	3	3	..
	Spine	1	2	..	..
	Hip	3	1	..	..
	Other bones and joints	1	..	..	..
	Skin	..	..	1	..
	Other forms	1	..	..	..
Nervous System	Epilepsy	2	5	..	..
	Chorea	1	2	4	..
	Other conditions	3	1	..	..
Deformities	Rickets	16	26	3	6
	Spinal Curvature	46	48	3	1
	Other forms	188	71	25	3
Other defects and diseases		85	748†	21	129‡

§ In addition there were 202 "Routine" and 2 "Special" cases of defective vision which had been corrected by glasses at the time of examination.

* This only includes the grosser cases requiring immediate treatment, others being left over for routine treatment by the School Dentist.

† Includes 546 Dull and Backward Children.

‡ Includes 74 Dull and Backward Children.

B.—Number of Individual Children found at routine Medical Inspection to require Treatment (excluding Uncleanliness and Dental Diseases).

Group. (1)	Number of Children.		Percentage of children found to require treatment. (4)
	Inspected. (2)	Found to require treatment. (3)	
Code Groups :—			
Entrants	3371	482	14.3
Intermediates and other Routine inspections	3496	570	16.3
Leavers	3326	503	15.1
Total (Code Groups)	10193	1555	15.3

TABLE III.—NUMERICAL RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA ON DECEMBER 31ST, 1932.

			Boys.	Girls.	Total.
Children suffering from the following types of Multiple Defect, *i.e.*, any combination of Total Blindness, Total Deafness, Mental Defect, Epilepsy, Active Tuberculosis, Crippling (as defined in penultimate category of the Table), or Heart Disease			4	4	8
Blind (including partially blind).	(*i.*) Suitable for training in a School for the totally blind.	At Certified Schools for the Blind	5	2	7
		At Public Elementary Schools ..	..	..	..
		At other Institutions	..	..	..
		At no School or Institution ..	..	..	..
	(*ii.*) Suitable for training in a School for the partially blind.	At Certified Schools for the Blind or Partially Blind	3	..	3
		At Public Elementary Schools ..	4	4	8
		At other Institutions	..	..	..
		At no School or Institution ..	2	2	4
Deaf (including deaf and dumb and partially deaf).	(*i.*) Suitable for training in a School for the totally deaf or deaf and dumb.	At Certified Schools for the Deaf	11	5	16
		At Public Elementary Schools ..	1	..	1
		At other Institutions	..	..	..
		At no School or Institution ..	1	..	1
	(*ii.*) Suitable for training in a School for the partially deaf.	At Certified Schools for the Deaf or Partially Deaf	1	2	3
		At Public Elementary Schools ..	2	2	4
		At other Institutions	..	..	..
		At no School or Institution ..	..	..	..
Mentally Defective.	Feebleminded.	At Certified Schools for Mentally Defective Children	10	7	17
		At Public Elementary Schools ..	70	37	107
		At other Institutions	1	3	4
		At no School or Institution ..	32	27	59
Epileptics.	Suffering from severe epilepsy.	At Certified Schools for Epileptics	2	1	3
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	..	1	1
		At other Institutions	..	..	..
		At no School or Institution ..	2	4	6
	Suffering from epilepsy which is not severe.	At Public Elementary Schools ..	17	10	27
		At no School or Institution. ..	2	3	5
Physically Defective.	Active pulmonary tuberculosis (including pleura and intra-thoracic glands).	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	3	3	6
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	..	..	..
		At other Institutions	..	..	..
		At no School or Institution ..	9	2	11
	Quiescent or arrested pulmonary tuberculosis (including pleura and intra-thoracic glands).	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	..	..	..
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	11	10	21
		At other Institutions	..	..	..
		At no School or Institution ..	3	8	11

TABLE III.—*continued*.

			Boys.	Girls.	Total.
Physically Defective (continued).	Tuberculosis of the peripheral glands.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	..	..	..
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	24	42	66
		At other Institutions	..	2	2
		At no School or Institution ..	13	13	26
	Abdominal tuberculosis.	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board	..	1	1
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	4	4	8
		At other Institutions	..	1	1
		At no School or Institution ..	4	3	7
	Tuberculosis of bones and joints (not including deformities due to old tuberculosis).	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	2	3	5
		At Public Elementary Schools ..	11	10	21
		At other Institutions	..	..	..
		At no School or Institution ..	10	9	19
	Tuberculosis of other organs (skin, etc.).	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board	..	..	..
		At Public Elementary Schools ..	1	2	3
		At other Institutions	..	..	..
		At no School or Institution ..	..	2	2
	Delicate children, *i.e.*, all children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School	At Certified Residential Cripple Schools	..	..	..
		At Certified Day Cripple Schools	..	..	..
		At Certified Residential Open Air Schools	3	..	3
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	54	47	101
		At other Institutions	..	..	..
		At no School or Institution ..	11	16	27
	*Crippled children (other than those with active tuberculous disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life.	At Certified Hospital Schools ..	5	2	7
		At Certified Residential Cripple Schools	..	1	1
		At Certified Day Cripple Schools	..	..	..
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	66 (2)	59 (5)	125 (7
		At other Institutions	..	..	..
		At no School or Institution ..	21 (3)	13 (3)	34 (6
	Children with heart disease, *i.e.*, children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public elementary school.	At Certified Hospital Schools ..	..	..	..
		At Certified Residential Cripple Schools	..	..	..
		At Certified Day Cripple Schools ..	..	..	..
		At Certified Residential Open Air Schools	..	..	..
		At Certified Day Open Air Schools	..	..	..
		At Public Elementary Schools ..	18	28	46
		At other Institutions	1	..	1
		At no School or Institution ..	4	8	12

*The figures in brackets indicate the number of those children who should be receiving Special School Educatio

TABLE IV.—RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31ST DECEMBER, 1932.

TREATMENT TABLE.

GROUP I.—MINOR AILMENTS.

Defect or Disease. (1)	Number of defects treated, or under treatment during the year.		
	Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
Skin—			
Ringworm—Scalp	48	7	55
Ringworm—Body	46	..	46
Scabies	35	2	37
Impetigo	464	4	468
Other Skin Diseases	248	7	255
Minor Eye Defects— (External and other, but excluding cases falling in Group II.)	289	18	307
Minor Ear Defects	258	20	278
Miscellaneous .. .. (*e.g.*, Minor injuries, bruises, sores, chilblains etc.)	2525	15	2540
Total	3913	73	3986

GROUP II.—DEFECTIVE VISION AND SQUINT (excluding Minor Eye Defects treated as Minor Ailments—Group I.)

Defect or Disease. (1)	Number of defects dealt with.			
	Under the Authority's Scheme. (2)	Submitted to refraction by private practitioner or at Hospital apart from the Authority's Scheme. (3)	Otherwise. (4)	Total. (5)
Errors of refraction (including Squint) ..	1158	49	35	1242
Other defect or disease of the Eye excluding those recorded in Group I.)	15	..	1	16
Total ..	1173	49	36	1258

Total number of children for whom spectacles were prescribed :—

(*a*) Under the Authority's Scheme 904

(*b*) Otherwise 70

Total number of children who obtained or received spectacles :—

(*a*) Under the Authority's Scheme 887

(*b*) Otherwise 70

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

Number of Defects.				
Received Operative Treatment.				
Under the Authority's Scheme, in Clinic or Hospital. (1)	By Private Practitioner or Hospital, apart from the Authority's Scheme. (2)	Total. (3)	Received other forms of Treatment. (4)	Total number Treated. (5)
623	62	685	45	730

GROUP IV. DENTAL DEFECTS.

NUMBER OF CHILDREN DEALT WITH.

	Age Groups Inspected.												Specials.	Total.
Age ..	Under 5	5	6	7	8	9	10	11	12	13	14	15		
East of County (Mr. Birch)	329	740	1014	868	942	913	989	1128	1066	814	63	—	107	8973
South of County (Mr. Keenan)	172	758	1153	1193	1248	1282	1378	1390	1356	924	140	2	—	10996
North of County (Mr. Catchpole)	180	985	1325	1438	1390	1537	1549	1427	1360	947	184	4	38	12364
Total	681	2483	3492	3499	3580	3732	3916	3945	3782	2685	387	6	145	3233

	No. of Children referred for Treatment.												Specials.	Total.
Age ..	Under 5	5	6	7	8	9	10	11	12	13	14	15		
East of County	150	455	674	603	628	556	553	611	494	391	27	—	107	5249
South of County	45	346	674	761	777	777	754	655	618	401	60	2	—	5870
North of County	52	502	771	868	824	840	772	664	641	423	83	1	38	6479
Total	247	1303	2119	2232	2229	2173	2079	1930	1753	1215	170	3	145	17598

(*b*) Referred for Treatment 17598
(*c*) Actually treated 12434

NUMBER OF TEMPORARY TEETH DECAYED.

	Saveable.											Unsaveable.									
Age ..	Under5	5	6	7	8	9	10	11	12	13	14	Under5	5	6	7	8	9	10	11	12	13
East of County ..	1375	3471	2577	3177	3825	1980	1492	1926	384	141	9	223	951	2516	1234	1126	324	647	535	245	122
South of County ..	250	1260	2005	1766	1437	886	566	247	97	12	2	49	524	1127	1273	1122	1000	792	450	272	60
North of County ..	187	986	1010	753	471	385	194	94	39	10	1	147	1725	2619	2791	1972	1689	1077	579	305	64
Total ..	1812	5717	5592	5696	5733	3251	2252	2267	520	163	12	419	3200	6262	5298	4220	3013	2516	1564	822	246

NUMBER OF PERMANENT TEETH DECAYED.

	Saveable.											Unsaveable.										
Age	5	6	7	8	9	10	11	12	13	14	15	5	6	7	8	9	10	11	12	13	14	15
st of County	11	77	161	304	301	381	514	519	480	27	—	0	0	2	2	14	28	67	114	110	12	1
th of County	1	24	53	131	230	262	364	427	304	50	2	0	1	12	25	64	125	182	240	198	31	2
rth of County	14	94	330	488	574	574	574	596	436	88	1	0	15	42	131	181	258	306	459	302	68	1
Total	26	195	544	923	1105	1217	1452	1542	1220	165	3	0	16	56	158	259	411	555	813	610	111	4

PARTICULARS OF TIME GIVEN AND OPERATIONS UNDERTAKEN.

No. of Half-days devoted to Inspection.	No. of Half-days devoted to Treatment.	Total No. of Attendances made by the Children at the Clinics and Schools.	No. of Permanent Teeth		No. of Temporary Teeth.		Total No. of Fillings.	No. of Administrations of General Anaesthetics.	No. of other Operations.	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth.	Temporary Teeth
East of County. 84	333	4010	117	2338	3788	400	2868	—	2028	1372
South of County. 82	344	4699	592	1058	4702	272	1346	—	1372	346
North of County. 104	299	4044	605	1697	5370	71	1964	6	1436	46
Total 270	976	12753	1314	5093	13860	743	6178	6	4836	1764

Group V.—Uncleanliness and Verminous Conditions.

(1) Average number of visits per school made during the year by the School Nurses .. 8.3

(2) Total number of examinations of children in the schools by the School Nurses .. 99,629

(3) Number of individual children found unclean .. .. 3,392 approx.

(4) Number of children cleaned under arrangements made by the Local Education Authority 0

(5) Number of cases in which legal proceedings were taken :—

(*a*) Under the Education Act, 1921 0

(*b*) Under School Attendance Bye-laws 5

RETURN OF DEFECTS (SECONDARY SCHOOLS).

Defect or Disease.		Routine Inspections. No. of Defects.		Special Inspections. No. of Defects.	
		Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)		(2)	(3)	(4)	(5)
Malnutrition		..	83	..	..
Uncleanliness		7	..	..	..
Skin	Ringworm—Scalp	..	..	..	..
	Ringworm—Body	..	..	..	..
	Scabies	..	..	..	..
	Impetigo	1	..	..	..
	Other diseases (non-tuberculous)	6	..	..	..
Teeth	Dental Diseases	146	..	1	..
Nose and Throat	Enlarged Tonsils only	19	74	2	1
	Adenoids only	1	1	..	..
	Enlarged Tonsils and Adenoids	8	2	1	..
	Other conditions	3	3	..	..
Enlarged Cervical Glands (non-tuberculous)		..	5	..	..
Goitre		1	5	..	..
Eye	External Eye Disease	3	4	1	..
	Defective Vision (including squint)	126	120	12	5
Ear	Defective Hearing	3	..	2	..
	Otitis media	9	..	..	..
	Other Ear Diseases	..	..	..	..
Defective Speech		..	2	..	1
Intelligence (backward)		..	17	..	..
Heart and Circulation		..	9	..	..
Anaemia		3	3	..	..
Tuberculosis	Pulmonary—Definite	..	..	..	..
	Pulmonary—Suspected	..	..	..	..
	Non-pulmonary—Glands	1	..	..	..
	Non-pulmonary—Spine	..	..	..	..
	Non-pulmonary—Hip	..	..	..	..
	Non-pulmonary—Other Bones and Joints	..	..	..	..
	Non-pulmonary—Skin	1	..	..	..
	Non-pulmonary—Other forms	1	..	..	..
Lungs	Bronchitis	1	3	..	..
	Other non-tuberculous diseases	..	1	..	..
Nervous System	Headache	..	1	..	1
	Signs of Overstrain	..	6	..	1
	Chorea	..	..	..	..
Rheumatism		1	..	..	..
Digestion		1	1	..	..
Deformities	Spinal Curvature	13	24	1	1
	Flat Foot	38	78	2	..
	Other Deformity	14	18	..	..
Other Defects		20	17	2	3
Remedial Exercises advised		82		1	
Number of individual children found at Routine Inspection to require treatment		253		—	

DENTAL INSPECTION OF SECONDARY SCHOOL CHILDREN.

	Age Groups Inspected.												
Age	7 and under.	8	9	10	11	12	13	14	15	16	17	18 and over	Total.
Fee-paying	46	41	43	85	166	257	226	190	140	109	55	15	1373
Free-place	..	..	1	43	157	211	180	170	161	123	74	22	1142
Total	46	41	44	128	323	468	406	360	301	232	129	37	2515

	No. of Scholars referred for treatment.												
Age	7 and under.	8	9	10	11	12	13	14	15	16	17	18 and over	Total.
Fee-paying	27	19	27	37	85	110	103	97	77	49	23	10	664
Free-place	..	..	..	26	86	108	91	80	93	68	40	9	601*
Total	27	19	27	63	171	218	194	177	170	117	63	19	1265

*Actually treated (Free-place) 364

PARTICULARS OF TIME GIVEN AND OPERATIONS UNDERTAKEN (SECONDARY SCHOOLS).

No. of Half-days devoted to Inspection.	No. of Half-days devoted to Treatment.	Total No. of Attendances made by the Children at the Clinics and Schools.	No. of Permanent Teeth		No. of Temporary Teeth		Total No. of Fillings.	No. of Administrations of General Anaesthetics.	No. of other Operations.	
			Extracted.	Filled.	Extracted.	Filled.			Permanent Teeth.	Temporary Teeth
Total 25	45	407	147	390	82	1	403	—	364	2