[Report 1913] / School Health Service, Berwick County Council.

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COUNTY OF BERWICK.

SECOND ANNUAL REPORT

ON THE

Medical Inspection and Supervision of School Children,

BY

ANDREW A. McWHAN,

M.B., B.Sc., D.P.H.

SCHOOL MEDICAL OFFICER,

FOR THE

YEAR ENDING 31ST JULY, 1913.

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COUNTY OF BERWICK.

Report by the School Medical Officer,

For Year ending 31st July, 1913.

To the Members of the Secondary Education Committee of the County of Berwick.

GENTLEMEN,

I have the honour to submit to you my Report on the Medical Inspection and Supervision of Schools in the County of Berwick for the year ending 31st July, 1913.

I am,

GENTLEMEN,

Your obedient Servant,

ANDREW A. McWHAN.

ST. MARY'S, RESTON,

2nd December, 1913.

EXTRACT FROM MEMORANDUM ON THE MEDICAL EXAMINATION AND SUPERVISION OF SCHOOL CHILDREN ISSUED BY THE SCOTCH EDUCATION DEPARTMENT.

The following further regulations should be observed:—

(i.) The inspection should be conducted in school hours, and on school premises, and in such a way as to interfere as little as may be with school work. The examination of each child need not on the average occupy more than a few minutes.

(ii.) The convenience of the teaching staff and the circumstances of each school must receive consideration, and in these matters and in the actual examination the Medical Officer will, no doubt, exercise sympathy and tact, giving due thought to the personal susceptibilities of those concerned.

(iii.) The facts revealed by inspection must be entered in a register (or on schedules or cards) kept at the school, the confidential nature of many of the entries being carefully respected. A copy of the entries should be transmitted to any other school to which the child may go.

(iv.) Every School Medical Officer should make an annual report on the schools and children under his superintendence. The report should be printed for facility of reference, and in order that a supply of copies may be available for distribution among the members of the School Board or School Boards concerned and other persons interested. The authority responsible for his appointment should send two copies of the report to the Scotch Education Department as soon as possible after the end of the year under review.

(v.) In order to secure effective bases for comparison of the work done in different parts of the country, one uniform year must be taken, the year to be adopted being in all cases the year ending 31st July, inasmuch as it is almost essential that the report in each year should deal with the same set of children.

(vi.) The report should include an account of the conditions and circumstances affecting the health of the children in the public schools of the district.

(vii.) It should also contain statistical records of the number of children examined, and of those re-examined or under medical supervision; the nature and results of the examination; the number of visits paid to classes; the number and character of the diseased conditions found at certain age periods; particulars as to blind, deaf, defective, and epileptic children; the medical advice given, both as to the prevention of conditions inimical to health and as to the remedy of diseased conditions that may be discovered, action taken, and so forth.

(viii.) In addition to such records it will be well, as far as practicable, to make systematic comparisons of the individual and collective measurements and characteristics of the children in each school with standard and local records, both as a means of determining the condition of health of particular children or classes, for guidance in future action, and as part of the anthropometric survey to which this Act should in due time contribute. This part of the work, however, must be kept in a secondary position while so much remains to be done in the elementary essentials of school and personal hygiene. It is to these essentials, and the manner and degree in which they have been dealt with in his district, that each School Medical Officer should devote the major portion of his report.

For the first year or two of the new arrangements, some adjustment may be necessary as to the amount of inspection to be undertaken. Probably, if each School Board aims at the thorough inspection of all children newly admitted, and of those about to leave school, the experience so gained will enable the Medical Officers to proportion their time to the needs of the particular school, to overtake the cases submitted by teachers or parents, and to establish a regular system of class visiting for selected cases of illness or defect. In the course of time, all the children affected with chronic or acute ailment or defect will be known and easily supervised, and systematic examination of the remainder thus facilitated.

The Department recommend that each School Board should encourage one or both of the parents of the child to be present at the first inspection, and to this end a notification should be sent to the parents as to the time and place at which it will be carried out. Whilst some trouble may be involved in inviting the parents, the Department believe that substantial gains would thus be secured, for by this means misunderstandings will be avoided and prejudice will be disarmed. Moreover, the parent is able to facilitate examination and to provide information, and the Medical Officer's opinion could be given clearly and directly to the persons most nearly concerned.

By a Minute of the Committee of Council on Education of Scotland, dated 30th April, 1913, regarding provision for the examination and supervision of pupils attending schools, it was

resolved that the medical inspection of children in schools within the area of every School Board shall be conducted in accordance with the regulations implied in this Memorandum.

LOCAL DETAILS.

The County of Berwick has an area of 457 square miles, and a population at the 1911 census of 29,643, of which 23,087 were resident in the landward districts, and 6,556 in the burghs.

The number of elementary schools in the County, the statistics for which are given in the Education Department's Return for 1912, is 51. In addition to these, there is Berwickshire High School and also two side schools at Redpath and Sunnyside, so that the total number of schools under medical supervision is 54.

At the census of 1911 the population of school age (5-13 inclusive) was returned as 4,885, while the average number on the roll, as given in the Department's Return, is 4,618. This number, however, is being affected by the decline in population throughout the County.

At the census of 1911 the three landward districts shewed a population of 23,087, but the estimated population at the middle of the year 1912 was reduced to 22,972; and in the middle of 1913, the current year, still further to 22,881.

The school population would appear to be affected in an even greater degree, and the effect is most clearly seen in individual schools.

The headmaster of Coldingham School, for instance, informs me that 10 years ago there were 59 in the infant class, while in the school year 1912-13 there were only 29, and there was no expectation of new children. In the same term of years the attendance of the whole school fell from 170 to 124.

ADMINISTRATIVE DETAILS.

My First Annual Report included a complete description of the administrative procedure of the Berwickshire Scheme of Medical Inspection, and at the end of the report were printed the various documents used in connection therewith.

During the year just ended these arrangements proved most satisfactory, and need not be further referred to, except as regards the difficulty which was occasionally experienced in obtaining the record cards of children who had removed to schools in this County from schools elsewhere.

Where a child removes from one school to another in the County the process of transference of the medical inspection card is simple, the headmaster of the first school merely posting the record card, in the special envelope provided, to the headmaster of the second school. Where a child removes to a school outwith the County, or where a child comes from such school to one inside the County, the process is complicated by the fact that not only are two medical inspection authorities being dealt with, but that the cards in use vary.

As Berwickshire was the last County in this part of the country to adopt a system of medical inspection, its arrangements naturally had to be co-ordinated with those previously made by neighbouring areas, and as the School Medical Officers for these areas desired that application for cards of children coming from schools in their areas should be made through them, it was, therefore, arranged that headmasters admitting such children should make application for their record cards through me. This also enabled transcription of the cards to be done in this office before being sent out.

On the head teachers of the schools rests the responsibility for the preliminary arrangements for medical inspection, and I must acknowledge the willing manner in which they have carried out their share in the scheme, as well as their great personal kindness to myself.

WORK OF THE YEAR.

In addition to the sanitary supervision of the schools and action in connection with the prevention of infectious diseases, the following classes of children were medically inspected in the school year 1912-13 :—

(1) All infants who started their school life since last medical inspection.

(2) All children who were born on or between 1st August 1899, and 31st July 1900.

(3) All others whom the headmasters wished me to examine.

VISITS PAID TO SCHOOLS AND NUMBERS EXAMINED.

During the year 78 visits were paid to the 54 schools in the area, and a total of 034 children, or 22·4 per cent. of the average number on the roll, were examined.

TABLE A.—Numbers Inspected.

	Boys.	Girls.	Total.
Entrants - - -	220 ..	191 ..	411
Leavers - - -	210 ..	197 ..	407
Non-Routines - -	94 ..	122 ..	216
	524 ..	510 ..	1034

ATTENDANCE OF PARENTS.

Although invitations were sent to all parents to attend, if they desired, only 91 availed themselves of the opportunity. Of these parents 78 attended in connection with the 411 infants examined, and 13 in connection with the 407 seniors. As a rule the mothers who attended were the mothers of well cared for children; the mothers of children who were dirty, verminous, or who had defects which should have been remedied—the very mothers whose presence was most desired—were seldom present.

FACTS DISCLOSED BY MEDICAL INSPECTION CONSIDERED IN DETAIL.

HEIGHT AND WEIGHT.

BERWICKSHIRE SCHOOL CHILDREN.

TABLE B.—AVERAGE HEIGHTS, 1912-1913.

Ages.	Boys. Number Examined	Berwickshire. In'h's	Berwickshire. Centi-metres.	British Assoc. St'nd'rd Centi-metres.	Girls. Numbers Examined	Berwickshire. In'h's	Berwickshire. Centi-metres.	British Assoc. St'nd'rd Centi-metre.
Years.								
5- 6	133	42·71	108·44	104·14	110	41·85	106·3	103·1
6- 7	88	45·15	112·92	111·76	80	43·31	110·02	108·9
12-13	94	56·47	143·44	139·7	92	57·48	146·01	141·5
13-14	116	57·87	147·00	144·5	105	58·53	148·69	146·8

BERWICKSHIRE SCHOOL CHILDREN.

TABLE C.—AVERAGE WEIGHTS, 1912-1913.

Ages. Years.	Boys. Number Examined	Berwickshire. Lbs.	Berwickshire. Kilogrammes	British Assoc. St'nd'rd Kilogrammes	Girls. Number Examined	Berwickshire. Lbs.	Berwickshire. Kilogrammes	British Assoc. St'nd'rd Kilogrammes
5-6	133	42·80	19·42	18·11	110	41.21	18·70	17·79
6-7	88	46·65	21·17	20·16	80	42·62	19.34	18·93
12-13	94	80·44	36·50	34.82	92	83·75	38·00	34·68
13-14	116	85·86	38·96	37·5	105	88·71	40·25	39·57

During 1911-1912 as many as possible of the children attending Berwickshire schools were weighed and measured. The average heights and weights of all the children of school age were tabulated in my last report, and graphs illustrating in a clear manner the measurements of Berwickshire boys and girls as compared with the averages of the British Association were also included.

The preparation of that table and of these graphs involved a considerable labour, so that it is only proposed to repeat such statistics for the whole of the children at intervals of say five years. This year figures are only given for the children actually examined.

It will be observed that at the ages under examination the height and weight of Berwickshire school children are above the averages of the British Association, and while infant boys are both taller and heavier than infant girls, the senior girls are in turn taller and heavier than senior boys.

CLOTHING AND FOOTGEAR.

No criticism of the clothing and footgear of children in this County need be made. Few underclad children are seen. Some children, however, suffer from overclothing, and come to school wearing an inordinate number of garments.

NUTRITION.

The state of nutrition of children has been divided up into four groups—good, normal, below normal, and bad, and the result will be seen in Table D. The figures are all given in percentages.

TABLE D.—Showing State of Nutrition.

State of Nutrition.	Boys.		Girls.		All Routines.
	Infants. Per Cent.	Seniors. Per Cent.	Infants. Per Cent.	Seniors. Per Cent.	Per Cent.
Good - - -	31·3	41·4	26·7	31·5	32·8
Normal - -	56·3	53·3	60·7	61·4	57·8
Below Normal -	10·9	4·7	10·4	7·1	8·3
Bad - - -	1.5	·6	2·2		1·1

Reference to last year's report will show that these percentages are similar to those in that report. Indeed, the percentage below normal in each of these years is identical, viz., 9·4 per cent.

The fact that in such a County as this one child out of every 10 is badly nourished is not satisfactory.

Last year I pointed out that this state of defective nutrition was due largely to two causes, which could be and should be remedied. These main causes were bad teeth and improper food.

With regard to the food question, I pointed out that it was not a question of inability on the part of many parents to provide food, but of inability to make the best of what could be provided. The part played by the scarcity of milk, the tea and bread habit, and the ignorance of many mothers regarding food values, were also referred to, and the desirability shown of imparting instruction in such matters to the senior girls, the future mothers of the County.

This question will be further referred to under teeth.

CLEANLINESS.

TABLE E.—Showing Cleanliness of the Head.

State of Head.	Boys.		Girls.	
	Infants. Per Cent.	Seniors. Per Cent.	Infants. Per Cent.	Seniors. Per Cent.
Lice - - - -	·454	.476	5·23	3·55
Nits - - - -	5·448	1·428	53·40	56·85
Somewhat Dirty - -	2·724	1·904	·52	·51
Dirty - - - -	8·172	2·856	1·56	2·55

TABLE F.—Showing Cleanliness of Body.

State of Body.	Boys.		Girls.	
	Infants.	Seniors.	Infants.	Seniors.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Lice	—	·476	—	—
Somewhat Dirty	—	2·380	1·57	1·01
Dirty	1·362	·952	·52	3·04

The figures in these tables show no improvement since last year, but rather a greater carelessness with regard to personal cleanliness.

Last year dirty heads were noted in 4% of the infant boys and 4% of the infant girls. This year 8% of these boys and 1.5% of the girls had their heads in an unnecessarily dirty condition. Little improvement in personal cleanliness can be hoped for without a school nurse, who can devote a considerable portion of her time to surprise visits to schools.

These surprise visits are the most effective methods of ensuring cleanliness. Careless mothers, who never know when a school nurse may examine their children, have a powerful incentive to keep their children continually clean.

One inspection per annum is not sufficient for such a purpose, more especially when notice is given of that inspection, thus affording an opportunity to the mother either to have her child specially cleaned up, or to keep him or her at home on the day of inspection.

Instances may be given. At the last medical inspection of one particular school, two infant boys who usually came to school in a dirty condition were referred to me for that reason. They were found to be unusually clean, and inquiry elicited the fact that on the previous night both boys had had baths and a change of underclothing. As neither of the mothers knew that the teacher was going to present them for examination, the cleansing must have been done with the intent, that should their children happen to be specially examined, they would not be disgraced.

After the inspection, however, these children would probably relapse into their ordinary condition, but were a school nurse to pay occasional visits to that school their mothers would be encouraged to keep them clean, as they would never know when the school nurse might visit the school.

The disadvantage of fixing the date of inspection was also seen at that same school by the average attendance on the day previous to inspection being 97.6%, while on the day of inspection it fell to 94%. This difference was due to children who were known to be dirty being kept at home.

In another school, out of 21 senior girls examined, 15 had nits in the head, and one had actual vermin.

Out of 33 infant girls examined, 24 had nits, and no fewer than six had actual vermin in their heads. Two of these infant girls had—owing to the itching due to the presence of vermin and infection of the consequent scratches—badly broken-out heads. Three infant boys had also their heads in a similar condition.

Nowhere would the value of a school nurse be more apparent than in these schools, provided that the School Boards were willing to exercise their powers under the Education Act, and under the Children Act, if need be.

TEETH.

TABLE G.—Shows the percentages of the children of either sex of the ages examined, arranged according to the condition of their teeth.

Condition of Teeth.	Boys.		Girls.	
	Infants. Per Cent.	Seniors. Per Cent.	Infants. Per Cent.	Seniors. Per Cent.
Sound - - - -	9·2	10·9	7·1	7·9
Fewer than five decayed -	33·2	58·1	37·2	67·6
Five or more decayed -	57·6	31·0	55·7	24·5

TABLE H.—Shows the percentages of children of both sexes in the various age groups, and also the total children with defective teeth.

TABLE H.

Condition of Teeth.	Infants. Boys & Girls Per Cent.	Seniors. Boys & Girls Per Cent.	Total. Boys & Girls Per Cent.
Sound - - - -	8·2	9·5	8·8
Fewer than five decayed -	35·1	62·7	47·4
Five or more decayed - -	56·7	27·8	43·8

The evil results accruing from improper feeding and bad teeth were very fully dealt with in last year's report.

As the result of that report, the Secondary Education Committee decided that a card should be printed with instructions thereon as to the best way of taking care of the teeth. The directions on the card are simple, and the card itself is eyeletted and strung so that it may be hung above the wash-stand, or in any other convenient position in the child's home. At the same time a circular was printed, calling the attention of mothers to the directions on the card, and giving some simple rules for children's dietary, and asking their co-operation.

The cards and circulars are to be issued during the school year, 1913-1914, and it is hoped that their issue will have considerable educative influence. They are printed at the end of this report.

One can understand why people as a whole do not pay much attention to the care of their teeth. They are so accustomed to bad teeth and their sequelae, such as digestive disturbance, toxæmia, anæmia and debility, etc., that they seldom connect the two, and the sequelae are generally put down to any cause but the true cause.

It was not until the last war in South Africa that the public began in some measure to realise the importance of a good set of teeth.

During that war, it has been stated that 2,541 soldiers were invalided home on account of defective teeth.

As the cost of equipment, etc., of each soldier was estimated to be not less than £100, the actual loss to the nation was represented by a sum of over £250,000.

It cannot be doubted but that the prevalence of dental caries with its far reaching after-effects represents an economic loss to the nation, in the shape of bad health and physical inefficiency, the magnitude of which cannot be realised.

Apart altogether from the effects of bad teeth on health, it is surprising that teachers for their own comfort do so little to introduce cleansing of the mouth. In many schoolrooms where children have a foul breath from the uncleaned, and in many cases septic condition of their mouths, the foulness imparts a distinct and most unpleasant odour to the room.

The mouth should be cleansed as regularly as the face; from a hygienic point of view it certainly requires cleansing oftener.

NOSE AND THROAT.

TABLE I.—Showing percentage of children suffering from diseases of the throat and nose.

	Boys.		Girls.		
	Infants. per cent.	Seniors. per cent.	Infants. per cent.	Seniors. per cent.	Total. per cent.
Mouth Breathers -	11.81	5.23	5.75	15.24	6.3
Enlarged Tonsils -	16.344	14.28	21.44	15.75	16.8
Adenoids - -	1.816	..	1.57	.508	.97
Enlarged Glands -	8.172	4.28	8.89	4.572	6.47
Other Conditions -	—	—	—	—	—

EXTERNAL EYE DISEASE.

TABLE J.—Shows the percentage of children suffering from external eye diseases.

	Boys. per cent.	Girls. per cent.	Total. per cent.
Squint	.2	.5	.36
Disease of Lids	.2	.5	.36
Conjunctivitis	—	—	—
Corneal Opacities	—	—	—
Other Conditions	.5	.5	.49

External eye disease is uncommon. The most serious is probably squint, and this is owing to the fact that parents will seldom call for medical assistance soon enough. Where treatment is not undertaken at a sufficiently early age, a squinting eye may become practically blind.

With some parents, however, even though this be pointed out, they will do nothing to get the child attended to.

EYESIGHT.

TABLE K.—Shows the percentage of senior children with normal or defective vision.

	Boys. per cent.	Girls. per cent.	Total. per cent.
Normal vision ..	59.7	50.7	55.3
6/9 in one or both ..	24.2	27.1	25.6
Less than 6/9 in one or both	16.1	22.2	19.1

As usual, a larger proportion of girls than boys show defective eyesight. Next to defective nutrition and bad teeth, this is the physical defect which most urgently requires administrative attention.

Here, again, a stumbling block exists in the fact that many parents will do absolutely nothing for the good of their own children. It is amazing to think that a father or mother will allow a child to go in a semi-blind condition, unable to obtain profit from the education offered, aud allow it to remain with a handicap which will so greatly diminish its usefulness in after life.

One case which is typical of many may be quoted.

One particular girl only saw with her right eye at six feet what she ought to have been able to see at sixty feet; with her left eye she only saw at two feet what she ought to have seen at sixty feet. She was looked upon as being mentally backward almost to the point of deficiency. Little wonder: as the girl could not see the blackboard except when she was close up to it, and even reading was a matter of the greatest difficulty.

Two intimations of the defect were sent to the girl's father. The second of these intimations was sent in the beginning of November, 1912, and at the end of January, 1913, the headmaster wrote me that she had got a pair of glasses from the chemist, which were of no use at all, and were returned. Since then nothing had been done, and he was convinced that nothing would be done. She would be 14 on the 7th of February.

On the 7th of February the girl was taken away from school, and no attempt had been made to remedy the condition.

This girl had suffered during her whole school life because she did not see properly. She did not profit by the instruction, and her backwardness was attributed to a dull brain. In her working life afterwards she will never be anything else but one unfitted for any skilled labour whatever. The girl has never had a chance.

HEARING AND EAR DISEASE.

As in last year, no infants were tested for hearing, but only seniors. The method used was the forced whisper test at twenty feet distance. As a result, six boys and twelve girls were found to have defective hearing. Of the six boys, four were defective in one ear and two in both; of the girls, five were defective in one, and seven in both ears.

Last year only one routine child was found with discharging ears; this year six had such disease. One was a boy, five were girls. The boy and four girls had only one ear discharging; the other girl had double otorrhœa. One boy and also a girl were found with the auditory canals so blocked with wax that their hearing was interfered with.

SPEECH.

Cases of defective speech numbered nine, including three defective speech, one of baby talk, one case of hesitancy, three stutterers, and a boy who was almost dumb, being able to articulate only a few words such as "be," "yes," and "penny."

MENTAL CONDITION.

In appraising the mental intelligence of each child, the teachers were asked to note their mental ability as bright, fair, or dull. As, however, each teacher had his or her own standard, statistics are only given here for these children who appeared backward or defective.

These statistics, too, only include the senior routines, not infants.

Out of these seniors, 32 boys and 42 girls appeared to be decidedly backward, and 3 boys and 2 girls were defective.

The figures as to non-routines may also be noted here. These included 7 boys and 9 girls who were backward, 1 boy and 1 girl who were defective, and 1 imbecile girl.

HEART AND CIRCULATION.

Out of the 5 cardiac conditions noted, 2 were of functional irregularity and 3 were cases of organic disease.

Cases of anæmia numbered 32, equivalent to 3.9 per cent. of the routine children examined.

It cannot be doubted but that a large proportion of these anæmic children owe their condition to improper feeding at home, and in particular to the tea and bread diet which is so common.

LUNGS.

Very few children were discovered to have affections of the lungs. 2 boys were found to be suffering from slight bronchial catarrh, and 2 girls were suspected to have incipient pulmonary tuberculosis. Naturally, children with acute lung conditions are kept at home and so miss inspection.

NERVOUS SYSTEM.

Only 3 children with a nervous temperament were noted.

TUBERCULOSIS.

Cases of tuberculosis or suspected tuberculosis numbered 6. Of these, 2 were cases of pulmonary tuberculosis already referred to. The others had tubercular cervical glands.

DEFORMITIES

Cases of marked deformity were uncommon, and a large number of the commoner deformities were so concealed by clothing as to be almost unnoticeable. A child with acute lateral curvature is at once noted, but where the curvature is slight it is not easily observed, more particularly as the practice is only to unloosen the clothing of the trunk, and not to expose the child's back, except in occasional cases. The conditions observed numbered 6 of lateral curvature, 9 with round shoulders, 8 with poking shoulder blades, 5 with pigeon breast, 1 with webbed fingers, 2 with naevus, 1 curvature of the leg bone after rickets, 1 scar after a burn, and 6 from other causes.

INFECTIOUS AND CONTAGIOUS DISEASE.

4 boys were discovered with impetigo, and one girl with ringworm of the head.

OTHER DISEASES.

Of other conditions seen, 4 boys showed alopecia, 2 had eczema, and other conditions seen were incontinence of urine, feverishness (this boy was sent home), alveolar abscess, right inguinal hernia, and dermoid cyst.

Of the girls, 2 had eczema, one had a gumboil, and another persistent headaches.

DEFECTS NOTED IN CHILDREN SPECIALLY SUBMITTED FOR EXAMINATION.

Children who do not fall into one of the age groups to be examined, but in whom the teacher believes there is some defect that requires attention, are examined specially and are technically termed "non-routines."

This year 94 boys and 122 girls, 216 in all, have been examined as non-routines.

TABLE L.—Conditions Noted in Non-Routines.

		Boys.	Girls.	Total.
Clothing Insufficient		—	—	—
Head Dirty, or		2	4	6
Head Verminous		7	29	36
Body Dirty		4	1	5
Body Verminous		1	—	1
Neglected		1	—	1
Nutrition Bad		10	10	20
Teeth Defective		2	5	7
Nose and Throat.	Mouth Breathing	14	3	17
	Enlarged Tonsils	4	3	7
	Adenoids	1	1	2
	Enlarged Glands	—	—	—
	Other Conditions	5	2	7
External Eye Disease.	Squint	1	2	3
	Other Disease	4	5	9
Eyesight defective		25	33	58
Ear Disease		5	2	7
Hearing defective		5	2	7
Speech defective		6	1	7
Mental Condition.	Backward	7	9	16
	Defective	1	1	2
	Imbecile	0	1	1
Organic Disease of Heart		0	3	3
Anæmia		3	5	8
Nervous Affections		1	3	4
Tuberculosis of Lungs		1	1	2
Tuberculosis of Glands, etc.		2	1	3
Spinal Curvature		—	2	2
Deformities		4	1	5
Infectious Conditions		2	—	2
Irregular attendance at School		—	—	—
Other Defects		9	12	21
Nothing Wrong		9	6	15
		136	148	284

INTIMATION TO PARENTS.

The conditions for which notices were forwarded to parents, their number, and the number attended to are shown in the next table.

TABLE M.

	Boys.		Girls.		Total.	
	Number of Notices sent.	Number attended to.	Number of Notices sent.	Number attended to.	Number of Notices sent.	Number attended to.
Dirty or Verminous Clothing -	1	—	1	—	2	—
Dirty or Verminous Head - -	3	3	38	27	41	30
Carious Teeth -	5	2	9	3	14	5
Enlarged Tonsils -	5	3	8	2	13	5
Nasal Obstruction -	16	11	7	2	23	13
Defective Vision -	28	11	32	11	60	22
External Eye Conditions	6	1	4	2	10	3
Defective Hearing	6	—	7	4	13	4
Ear Discharge -	4	1	5	3	9	4
Other Conditions -	10	8	7	3	17	11
	84	40	118	57	202	97

These notices all refer to single defects. Where a child suffers from more than one defect, each defect is classed separately.

Table M, therefore, shows the number of defects for which notices were sent to parents. Table N, which follows, shows the actual number of children concerning whom intimations were sent to parents, and out of those the number attended to.

TABLE N.

	Number notified to parents as having one or more defects.	Number attended to.	Percentage attended to.
Boys - - -	70	33	47.1%
Girls - - -	101	53	52.5%
Total - -	171	86	50.3%

Tables M and N show that during 1912-13 intimation of 202 defects or conditions requiring medical treatment was sent to the parents of 171 children. Out of 202 defects or conditions for which attention was required, 97 are stated to have been

attended to, or, taking the children themselves, 86 out of 171 have been attended to These proportions work out at 48% of the notices and 50% of the children having been attended to. Last year only 33% received attention, so that this year indicates an improvement in this respect.

As I have had no time to revisit schools after the routine examination, no accurate figures of the number of children cleansed or satisfactorily attended to are possible. The figures given in Tables M and N of the children treated or under treatment are due to the kindness of the various headmasters in undertaking the necessary inquiries.

The want of other visits than the ones paid for the routine inspection, or for the purpose of inquiring into the spread of infectious disease, is regrettable, and the want of a health visitor or school nurse in this connection is much felt.

It is hopeless to expect an uneducated man or woman to realise the full necessity of obtaining treatment for children unless by a personal visit and a personal explanation. For practical purposes one such interview is worth several printed intimations, and it is largely for this purpose that the services of a school nurse are required.

Even of those who are said to have been treated or attended to no indication of the number satisfactorily treated can be given. From what I have been told there is no doubt that a considerable number cannot be said to have been at all satisfactorily treated. In one case that came under my observation a girl was found to have a scar of considerable extent on the corner of her left eye, which rendered the sight of that eye indistinct, and at the same time a refractive defect was found in the right eye.

With a view to obtaining a reduction of the opacity of the scar or nebula an intimation was sent to her parents advising them to take the child to a doctor. The child instead was taken to an optician, who prescribed spectacles for the child. An attempt had been made by this optician to correct the refractive defect in the right eye, but the glass for the left eye, the eye requiring medical attention, was an ordinary plain glass.

CHILDREN REQUIRING SUPERVISION.

Children whose physical or mental condition required supervision numbered 52 boys and 48 girls, a total of 100, for the following reasons :—

TABLE O.

	Boys.	Girls.	Total.
Neglected	1	0	1
Clothing Poor or Insufficient	—	—	—
Nutrition Bad	9	12	21
Head Dirty or Verminous	9	5	14
Body Dirty or Verminous	5	2	7
Nose and Throat	6	—	6
Eyes and Eyesight	5	7	12
Ears and Hearing	5	1	6
Speech Defective	4	1	5
Mentally Backward	5	—	5
Mentally Defective	3	2	5
Imbecile	—	—	—
Heart and Circulation	11	12	23
Nervous System	3	2	5
Tuberculosis of Lung (diagnosed or suspected)	2	3	5
Tuberculosis of Glands or Bones	1	2	3
Deformities	7	8	15
Other Disease or Defect	3	4	7
	79	61	140

That is to say, the 100 children required supervision for 140 defects or other conditions.

CHILDREN REPORTED TO SCHOOL BOARD.

Two children were reported to the Duns School Board, under Section 6 of the Education (Scotland) Act, 1908, as being unable to take advantage of the education offered on account of bad nutrition.

THE PREVENTION OF INFECTIOUS DISEASE.

Responsibility for the prevention of the spread of infectious disease devolves primarily upon the Medical Officer of Health. As in all three districts and in two out of the four burghs I am also Medical Officer of Health, co-operation between the school and the public health service is automatically secured.

In the case of notifiable infectious diseases, such as scarlet fever and diphtheria, the existing machinery provides for their notification by medical practitioners and heads of households, for their isolation in hospital, and for disinfection of houses.

Over non-notifiable diseases, however, such as measles and whooping cough, there is no such control. They are not notifiable, and as a rule knowledge of their existence only comes too late for preventive action to be effective.

These non-notifiable diseases are the more important on account of their greater prevalence, and also because many people consider them as not being severe enough to necessitate the services of a doctor. The result is that children who are attacked by them often contract serious diseases which hinder their progress in after life, and which a little medical and nursing care at the time would have prevented.

In another direction, too, they are most important, as their occasional prevalence leads at times to serious interference with school work.

When I first entered upon my duties in this County probably no single item took up so much time as inquiries into these outbreaks and in writing letters of explanation as to administrative procedure to Headmasters, Clerks of School Boards, and members of Boards themselves.

With a view to diminishing that incessant correspondence and to furnishing teachers and others with a reliable guide to the procedure relating to infectious disease and school attendance, school closure, and school attendance and grants, the whole question was very fully discussed on pages 34-42 of my last report.

The aim of that section has been justified by the results. Very many fewer letters have been received, and to them detailed answers were rarely required, reference to a particular section of that report being as a rule all that was necessary.

With regard to the notification of non-notifiable diseases by teachers, paragraph 2 of Circular M.111 of the Education Department states, "It is of great importance that the earliest possible intimation of sickness, ascertained or suspected to be infectious, in the persons of scholars, or of the family to which they belong, should be given by schoolmasters to the Medical Officer of Health."

Special forms were issued to headmasters to enable them to comply with this circular, and the number of non-notifiable cases intimated in this manner has arisen from 143 during last year to 249 this year. Particulars are appended in Table P.

TABLE P.

	East District.	Middle District.	West District.
Measles - - -	33	46	2
Whooping Cough -	34	19	65
Mumps - - -	1	—	38
Chickenpox - - -	4	6	0
Ringworm - - -	—	1	—
	72	72	105

Several schools were more or less severely affected. On the re-opening of Langton School early in September it was found that at least 7 families were affected. The outbreak was mild, but it lasted till November, 46 cases amongst the school children being notified by the Headmaster.

The spread of this epidemic was due to infection outside the school.

During October, 10 cases of mumps occurred at Gateside School in the West District.

In January, 20 cases were notified by the Headmaster of Mordington School between the 20th and 31st of the month.

In April this outbreak spread to Paxton, 11 cases being there affected.

The most unfortunate school, however, was Gordon. On March 14 no fewer than 28 cases of mumps were notified at one time.

On June 9th, 17 cases of whooping cough were reported, and on June 18th another batch of 48 cases.

In the month of June 12 cases of measles occurred at Bunkle.

Table Q shows the total percentage of children, of the age groups examined, who have already suffered from the principal non-notifiable infectious diseases.

TABLE Q.

	Measles.	Whooping Cough.	Scarlet Fever.	Diphtheria.	Chicken-pox.	Mumps.
Infants -	36·7	38·4	6·1	1·7	15·3	1·4
Seniors -	66·6	46·2	10·5	2·9	17·7	10·1

Reference to this table shows the heavy incidence of measles and whooping cough amongst children.

In the case of the former, comparison with last year's figures shows that out of every 100 children about 35 have suffered from measles before entering school, and that another 30 contract the disease during their school life.

The great difficulty in controlling the spread of measles lies in the fact that its distinctive rash does not appear until the fourth day. Up to the time of its appearance the symptoms are those of a cold in the head, so that the child affected may attend school or, if not at school, may play with other children and disseminate infection broadcast before the nature of the disease is recognised at all.

Once the existence of cases become known, teachers may carefully examine their children each day, and rigorously exclude all those with the premonitory symptoms of measles and yet be disappointed to find that their efforts seem of no avail.

In such cases probable explanation of the spread will be found in the figures of Table Q. No matter how many children of school age are affected, still more of a younger age will be ill at their homes, where unlimited opportunities are often afforded for the disease spreading.

Not infrequently by the time the existence of measles cases is even suspected by the teachers, the seeds of an epidemic are already sown, and confirmation of the teachers' suspicions with regard to school children may be accompanied by the information that the infant children of the affected family or families have just been suffering from the same disease.

Immediate visitation of all absentees and inquiry into all circumstances affecting the health of the family by a careful attendance officer would, in very many instances, elicit these details, and would enable early notice of the existence of such disease to be given to the authorities responsible for its prevention. As a rule, by the time knowledge of the existence of measles in school children reaches me, it is too late for effective preventive measures to be taken.

Whooping cough, on the other hand, does not so often occur in acute outbreaks. The reason for that will also be seen in Table Q. by the fact that out of every 100 children 38 will already have had the disease before coming to school, and that only other 6 take it during their school life.

One suggestion may be made which would considerably aid in the control of these diseases. Section 57 of the Public Health (Scotland) Act provides that every parent or person who has the care of a child who is or has been suffering from an infectious disease or who resides in an infected house shall procure and produce a medical certificate to the teacher before such a child is re-admitted to school.

Therefore whenever any excuse for a child's absence is given on account of infectious disease, notice should be sent to the parent stating that this medical certificate would be required before the child would be readmitted to school and that in order to obtain it a doctor should be called in at once. This would not only bring to the knowledge of the headmaster and indirectly to me accurate information with regard to the existence of infectious disease but it would enable more efficient steps to be taken to prevent its spread.

HYGIENIC CONDITIONS OF SCHOOLS.

Time did not permit any special attention to be paid to the hygienic condition of schools in the County. Action was only taken with regard to one school, viz., Cairnbank School in the Parish of Coldingham.

In consequence of a representation by four ratepayers as to the sanitary condition of this school, a visit was paid there on 4th December, 92. This visit and the consequent report to the Local Authority were rendered necessary under Section 31 of the Housing of the Working Classes Act, 1890, which states :—

> "If in any district any four or more householders living in or near to any street complain in writing to the Medical Officer of Health of that district that any dwelling house in or near that street is in a condition so dangerous or injurious to health as to be unfit for human habitation, he shall forthwith inspect the same, and transmit to the Local Authority the said complaint, together with his opinion thereon, and if he is of opinion that the dwelling house is in the condition aforesaid, shall represent the same to the Local Authority, but the absence of any such complaint shall not excuse him from inspecting any dwelling house and making a representation thereon to the Local Authority."

At that visit the school was found in a cleanly condition; the ashpit or privy midden was nearly empty; its bottom was below the surface of the ground, and it was not drained. The playground was wet, clayey, and slippery. Water was obtained from a well about 180 or 200 yards on the Cockburnspath side of the school. It was fetched by the School Cleaner, and the provision for storing it in the school was defective.

A copy of this report was also sent to the Coldingham School Board, and a letter was sent therewith stating that in my opinion there was no immediate necessity to provide a separate water supply for the school, but that the means of transporting it and storing it in the school were defective. I recommended that a small trolley be obtained, which would enable a larger quantity of water being obtained with greater ease, and that the drinking water should be kept in a covered vessel, preferably one with a tap.

As regards the latrine, I stated that with the privy midden system there was always bound to be complaints, and that I considered it a nuisance and dangerous to health. I advised that the bottom of the ashpit should be brought above the surface of the ground, and that it should be roofed in, and that the pail system should be adopted.

Since then the School Board have converted the privy midden system into pail closets, and have constructed a roofed-in ashpit. A covered vessel with a tap for the drinking water should also be provided.

PHYSICAL EDUCATION.

"It will be remembered that the movement towards Medical Inspection arose out of the investigations made by the Royal Commission on Physical Training (Scotland) 1903, and the subsequent Departmental Committee's investigations into Physical Deterioration (1905). It is the duty of School Boards to provide physical as well as mental education. Physical training affords many excellent opportunities for the detailed examination and supervision of the children, and, if conducted with due regard to each child's condition as revealed by medical inspection, may itself become one of the most important methods of medical treatment, both curative and preventive. For instance, proper exercise in breathing may be all that a child of tubercular tendency needs to prevent the development of tuberculosis of the lungs. By correctly adjusted exercises, carried on under correct hygienic conditions, the children may be so

improved in their physical health as to throw off or resist effectually many of the ailments associated with the school ages. The school may thus be made a place not only for physical and mental training, but also for the forming of hygienic habits and the building up of sound constitutions." (Memorandum on Medical Inspection issued by Scotch Education Department.)

The importance of physical education is, even yet, insufficiently realised in this country. Many misconceptions exist regarding it. Two of the most important of these are (1) that school is a place for training the mind only, and not the body, and (2) that the average child does not require any systematic physical training at all.

The first of these misconceptions should be swept away when it is realised that the whole object of physical education or "educative gymnastics," as it is sometimes termed, is not to produce muscle, but to train and use muscle as a means towards the better functioning of the body as a whole. The improvement of all the vital functions is destined to produce increased bodily health and a higher standard of mental vigour; to send the child out from school to enter upon his lifework not only with a brain more alert, but with a constitution toughened to resist the strains and stresses encountered in the world; in short, to increase the efficiency of the nation by the increased efficiency of its units.

As regards the second misconception, it is true that many children may be so vigorous as to require little or no consideration in this way, but, even with such, it must not be forgotten that school is an artificial institution which has been rendered necessary by our civilisation, and that school life is accompanied by manifold influences which tend to retard development, or influence it in an evil manner. Every day, in every school in the County, children may be seen with their spines bent by poring over their books; they may be seen with their spines kept continually in a state of torsion from having to look at a blackboard placed on one or other side of them; in writing, the worst positions of all are generally seen. These and other influences produce the round shoulders, the stooping position of the body, and the lateral curvature of the spine, which are so common. Gymnastic exercises to counteract the effect of these malpositions are necessary, and it is only fair to the children to give them frequent corrective exercises to prevent any of these deformities becoming permanent.

The true significance of the terms "physical education," and "educational gymnastics," will now be appreciated. The terms are educational terms applied to educational subjects.

In this County physical training is undertaken by specialist teachers under the Secondary Education Committee; by others employed by Boards; in some, by the teachers themselves; and in Duns School by the teachers under the supervision of and with the assistance of the County Instructors.

Every effort should be made to extend the benefits conferred by proper physical training, and one good method of doing so would be to induce teachers to attend vacation classes in physical education or else classes in the County taught by the County Instructors.

The better training of teachers in educational gymastics would result in their desiring the advice and assistance of the County Instructors in training their children, and would thus lead to better results as well as to a better use of the County Instructors' time.

In the meantime, good work is being done by Miss Edgar and Mr. Craig, the County Instructors, and others, although all are handicapped by the want of apparatus and gymnasia.

The instructor to the Coldingham School Board, Mr. Brown, has overcome some of these difficulties, and in the store house in my garden at Reston, which is at present being used as a Boy Scouts' meeting place, he has fitted up a Swedish beam, ribstalls, and vaulting horse, and now, for the second year, continuation classes in gymnastics—under the auspices of the Coldingham School Board—are being held. Mr. Brown also conducted, this year, a very successful swimming class for the boys of St. Abbs' School, and last winter a class in Morris dancing for the teachers of Eyemouth School

In Eyemouth School I have observed specially good classroom exercises and infant games, given under the supervision of Miss Garden, infant mistress of the school.

Appendix A.

TAKE CARE OF YOUR TEETH.

Learn to Take Care of Your Teeth when You are Young.

(1) Teeth decay because food sticks about the teeth after eating. The food then decomposes, acts upon the teeth and causes them to decay.

(2) Prevent food from sticking to the teeth by brushing your teeth and gums with a tooth-brush.

(3) Brush your teeth and gums after Supper at night before going to bed, and also in the morning.

Brush in all directions, up and down, across and both inside and outside your gums.

(4) If you have any bad teeth, get them attended to by a dentist. Bad teeth do not necessarily require to be pulled out; they may be stopped by a dentist.

Remember! you may have only one bad tooth, but that tooth may lead to the decay of others.

(5) Chew your food well and eat plenty of hard food. Don't leave your crusts of bread.

(6) At meals, don't drink between each mouthful. Eat first and drink afterwards.

Attend to these simple directions and your better health will be your reward.

Appendix B.

SECONDARY EDUCATION COMMITTEE OF BERWICKSHIRE.

ST. MARY'S,
RESTON.

APPEAL TO MOTHERS.

DEAR MADAM,

The Secondary Education Committee of the County of Berwick has had its attention drawn to the large proportion of school children in the County who suffer from decayed teeth, and to the evil effects on health, both in school and after-life, that that condition so often causes.

The Committee are of opinion that large numbers of these children owe their bad teeth to the fact that when they were infants of a year old and upwards their mothers fed them solely on soft foods, which not only did not give their jaws and teeth the exercise necessary for proper development, but directly encouraged decay.

The Committee think that if mothers would avoid giving their children such foods as new bread, sweet biscuits and cakes, sweets, etc., but give them old bread and make them eat the crusts as well, with butter or margarine rather than jam, and porridge and milk instead of tea, they would find that their children would develop much better sets of teeth, and that much of the present-day suffering would be prevented.

For children who are older and more able to look after themselves, the Committee has printed cards of advice as to why teeth should be cleansed and how.

I have pleasure in enclosing a copy of the card, and would ask you to see that it is hung up above the washstand or on the wall, and that you encourage your children to attend to the advice thereon.

Yours faithfully,

ANDREW A. McWHAN,

School Medical Officer for the County of Berwick.