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Contributors

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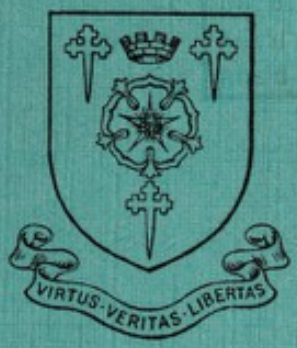

BOROUGH OF GLOSSOP.

EDUCATION COMMITTEE

Annual Report

OF THE

School Medical Officer

(E. H. Marcus Milligan, M.D., D.P.H.)

For the Year 1937.

J. Andrew & Co., Ltd., Proprietors of The Glossop Printers Ltd.,
Howard Street, Glossop.

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For the Year 1937.

BOROUGH OF GLOSSOP.

Members of the Education Committee.

HIS WORSHIP THE MAYOR
(Councillor Wm. Hankinson, C.C., J.P.).

CHAIRMAN:
Alderman J. D. DOYLE, J.P.

VICE-CHAIRMAN:
Alderman J. E. BUCKLEY, J.P.

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Mr. DANIEL BUCKLEY.
Mr. ABEL HARROP.
Mr. T. N. HINCHCLIFFE.
Mr. J. W. S. FIELDING.

Glossop Education Authority.

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER,

For the Year 1937.

To the Chairman and Members of the Education Committee.

I submit herewith my Annual Report for 1937.

Your obedient servant,

E. H. M. MILLIGAN, M.D., D.P.H.,

Fellow Royal Institute of Public Health, etc.,
School Medical Officer.

(1) STAFF.

E. H. Marcus Milligan, M.D., D.P.H., School Medical Officer.

Peter Malloch, L.R.C.P. & S., School Oculist.

Mr. Marcus Mamourian, F.R.C.S., Surgeon for Nose and Throat Diseases.

Mr. Roland Barnes, F.R.C.S., Orthopædic Surgeon.

Mrs. Manwood, L.D.S., School Dentist.

Miss A. W. Corney, Certified Royal San. Inst., Fully Trained S.R.N.

Post of second Nurse now vacant. Miss P. Bennett, till Feb. 1938. Certified Royal San. Inst., S.R.N.

(2) CO-ORDINATION.

The M.O.H. or S.M.O. and M.O. to the Maternity and Child Welfare Clinics. Children from the latter attend the Minor Ailments and other School Clinics.

The School Nurses are also Health Visitors.

(See pages 3 and 4 of the Report for 1931).

(3) SCHOOL HYGIENE.

During the past year improvements were carried out in a number of the schools.

Playgrounds: The surfaces were rendered impervious in the following schools: St. Charles', Duke of Norfolk's, West End, Whitfield Junior, Dinting C.E., St. Andrew's. All Saints was done in the previous year.

Defective Flooring: New flooring was put in at St. Charles'.

Sanitary Conveniences: W.C.'s were put in at the Duke of Norfolk's.

Lighting and Ventilation: Windows were greatly enlarged and also made lower at the Duke of Norfolk's.

Drying Arrangements: While the schools generally have heat on in the cloakrooms, in none except the extension at West End School are there heated rails and provision made for drying boots.
The question has been seriously considered by the Education Committee and the Borough Surveyor was instructed to report regarding it.

Physical Training Accommodation: A scheme has been approved by the Education Committee to provide lockers for the children at all the schools.

No schools in the Borough are on the "black list."

(4) MEDICAL INSPECTION.

Routine Inspections:— (See my Report for 1936).

There were 666 routine inspections in 1937 and 2,285 special examinations and 2,862 re-examinations.

(5) THE FINDINGS OF MEDICAL INSPECTIONS.

I give herewith a table which shews the percentages of various defects found at routine examinations.

PERCENTAGE DEFECTS FOUND AT MEDICAL INSPECTIONS, 1935, AND CERTAIN OTHER YEARS.

Year...	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
No. children examined	919	840	813	808	855	764	774	766	761	740	702	666
‡Malnutrition—												
Req. Treatment (Bad) (D)...	1.5	1.4	2.3	1.2	1.4	4.0	1.8	3.4	0.92	0.94	1.28	*1.9
Req. Observation (C)	2.0	4.0	3.5	2.7	2.0	1.3	1.5	6.5	3.4	*15.4	17.0	†14.5
Uncleanliness (per Nurses' Inspection) ...	1.7	2.1	2.6	3.0	†3.9	†5.5	†5.3	†4.3	†5.3	†3.9	†10.0	7.3
Skin—Ringworm—												
Scalp	0	0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Body...	0	0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Scabies	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.14	0.0
Impetigo	0	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.13	0.27	0.14	0.0
Other Skin Diseases	0.1	0.71	0.7	0.4	0.5	0.5	0.3	0.0	0.34	0.13	0.57	0.45
Eyes—												
Blepharitis	0.2	0.5	0	0.1	0.0	0.1	0.3	0.3	0.0	0.0	0.0	0.0
Conjunctivitis...	0	0	0	0.1	0.0	0.0	0.0	0.1	0.13	0.0	0.28	0.0
Keratitis...	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Corneal Opacities	0.3	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Defective Vision (excluding Squint)—												
Req. Treatment	5.7	4.7	7.8	6.1	3.1	§8.3	§8.0	§4.5	§7.2	§5.3	§5.4	§5.8
Squint	0.8	1.1	0.6	0.8	1.1	0.2	0.3	0.65	0.26	0.54	1.5	1.8
Other Conditions	0.1	0.1	0	0.2	0.1	0.1	0.0	0.1	0.0	0.13	—	—

Year...	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Ears—												
Defective Hearing	0.43	0.8	0.4	1.2	0.4	0.3	0.0	0.26	0.0	0.13	0.14	0.6NB
Otitis Media	0.43	0.9	0	0.1	0.0	0.1	0.0	0.26	0.0	0.0	0.42	1.05
Other Ear Diseases	0	0	0	0.1	0.3	0.1	0.2	0.1	0.2	0.27	0.0	0.15
Nose and Throat—												
Enlarged Tonsils only:												
Req. Treatment	3.1	2.5	4.5	3.9	2.4	3.7	1.5	1.0	0.39	0.81	1.0	1.6
Req. Observation	2.8	3.5	6.5	6.0	3.5	4.0	3.0	2.6	2.2	1.3	1.5	1.05
—Adenoids only:												
Req. Treatment	1.7	1.6	3.7	1.1	1.5	1.5	0.7	0.26	0.39	0.27	0.14	0.15
Req. Observation	1.6	2.6	3.6	1.8	2.9	2.2	1.3	6.5	0.52	0.41	0.71	1.6
—Enlarged Tonsils & Adenoids:												
Req. Treatment	1.4	2.5	1.4	1.1	3.0	2.0	0.5	0.78	0.39	1.08	0.42	0.45
Req. Observation	1.0	2.0	0.8	1.0	0.7	—	—	0.4	0.65	0.0	0.0	0.0
Other Conditions	—	—	—	—	0.1	0.2	0.2	0.0	0.0	0.13	0.0	0.15
Enlarged Glands (Non-Tubercular):												
Req. Treatment	4.2	3.9	4.4	2.7	2.6	3.0	2.9	2.7	0.92	1.62	1.85	0.30
Req. Observation	17.9	8.3	8.6	7.8	5.0	6.1	3.7	4.3	5.6	3.37	2.56	2.12
Defective Speech:												
Req. Treatment	0.3	0.1	0.2	0.2	0.3	0.2	0.0	0.0	0.2	0.0	0.0	0.60
Organic Heart Disease:												
Treatment and Observation	1.3	1.5	2.7	1.7	2.1	1.9	1.3	0.5	0.52	0.54	1.28	0.75
Functional Heart Disease:												
Treatment and Observation	9.7	10.5	9.3	8.0	7.2	7.3	5.1	3.0	4.2	3.22	4.27	3.30

Year...	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Anæmia:												
Req. Treatment	1.5	0.7	1.8	1.3	1.1	1.5	0.3	0.1	0.2	0.27	0.7	0.90
Req. Observation	1.9	1.6	2.4	1.1	1.6	0.75	0.7	1.3	2.3	1.21	2.1	0.45
Bronchitis:												
Req. Treatment	0.8	0.4	0.6	0.4	0.4	0.5	0.2	0.26	0.13	0.54	0.57	0.75
Req. Observation	0.43	0.7	0.9	1.0	0.8	0.75	0.5	0.9	1.0	0.40	1.00	0.45
Other Non-Tubercular Disease of Lung...	0	0	0	0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0
Tuberculosis:												
Lungs—												
Definite...	0.3	0.1	0.2	0.4	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0
Suspected	0.43	0.8	0.3	0.6	0.5	0.5	0.4	0.52	0.9	0.27	0.28	0.15
Glands—												
Req. Treatment	0.3	0.1	0.4	0.2	0.2	0.5	0.0	0.0	0.2	0.0	0.0	0.45
Req. Observation	0.3	0.3	0.1	0	0.1	0.0	0.1	0.1	0.2	0.0	0.0	—
All Other Forms	0	0.1	0	0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.45
Nervous Conditions:												
Epilepsy	0	0.1	0.2	0.2	0.1	0.0	0.0	0.0	0.13	0.0	0.14	0.30
Chorea—												
Req. Treatment	0	0.4	0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Req. Observation	0	0.2	0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.30
Other—												
Req. Observation	0.1	0	0.3	0.2	0.2	0.1	0.0	0.0	0.2	0.13	0.14	0.0

Year...	1926.	1927.	1928.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	1937.
Deformities:												
Spine—												
Req. Treatment	—	—	—	—	—	—	—	—	—	—	0.42	0.15
Req. Observation	0.1	0	0	0.1	0.2	0.0	0.1	0.0	0.0	0.13	0.14	0.0
Rickets—												
Req. Treatment	0.3	0.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.13	0.28	0.30
Req. Observation	—	—	—	—	—	—	—	—	—	—	0.14	0.90
Other Forms—												
Req. Treatment	0.8	0.4	0.1	0.7	0.7	0.7	1.2	0.4	0.65	1.08	0.7	1.81
Req. Observation							0.4	0.0	—	0.81	0.42	0.45
Other Defects and Diseases—												
Req. Treatment	2.7	4.2	3.8	2.1	2.2	3.6	2.1	0.65	0.39	2.5	1.7	1.20
Req. Observation	15.7	14.8	15.2	10.0	10.0	10.9	11.1	9.4	3.0	0.95	1.8	1.20

‡ Special Report regarding this on Pages 18 to 32.

† Least presence of nits included in this figure now. For over 5 months temporary nursing only available for inspections.

NB Of 1,201 children examined by the Audiometer in 1938 (Jan.) 11.4 were found to be defective. Children of 7 years and upwards were examined.

§ Infants not counted.

* Includes Nutrition "however slightly" subnormal in accordance with Circular 1443, and recommended by the S.M.O. for School Meals.

To compare the finding of Medical Inspections in Glossop with that of other areas I give the table of defects per thousand found in the schools of England and Wales, 1935, taken from Sir Arthur McNalty's report for 1936, and put the Glossop figures for 1937 alongside them.

	Incidence of defect per 1,000 Children Requiring Treatment (Routine inspected).	
	England and Wales, 1936.	Glossop, 1937.
Skin Diseases	9.4	4.5
Defective Vision (Entrants excluded)	*76.3	*58
Squint	7.8	18
Other Eye Disease	6.8	—
Defective Hearing	2.9	6
Otitis Media	4.0	10
Chronic Tonsilitis	20.6	16
Adenoids	2.8	1.5
Chronic Tonsilitis & Adenoids	20.1	4.5
Other Nose & Throat Defects	6.6	1.5
Speech	1.3	6.0
Organic Heart	1.6	7.5
Pulmonary T.B.—		
Definite	0.1	0.0
Suspected	0.4	1.5
Non-Pulmonary T.B.	0.5	9.0
Epilepsy	0.2	3.0
Chorea	0.5	0.0
Other Nervous Conditions ...	1.3	—
Deformities—		
Rickets	1.2	3.0
Spinal...	2.5	1.5
Other Conditions	8.2	12

(*Entrants excluded).

PERCENTAGES OF NUTRITIONAL CONDITIONS.

	England and Wales,	Glossop—	
	1936.	1936.	1937.
A (Excellent)	14.6	8.4	19.3
B (Normal)	74.2	72.5	64.1
C (Sub-Normal)	10.6	17.0	14.5
D (Bad)...	0.7	1.28	1.9

It is pleasing to note that there has been an increase of children in Glossop with excellent nutrition as compared with last year, namely 19.3 per cent. in 1937 and 8.4 per cent. in 1936; a slight decrease in slightly sub-normal children, 14.5 per cent. as compared with 17 per cent. in 1936. The very badly nourished are down .6 per cent more.

(6) SCHOOL NURSING.

During 1937, 195 visits were paid to the homes of school children for "following up" and other purposes by the School Nurses.

5,394 examinations were made in schools of children regarding cleanliness, and 397 children were found unclean; average visits per school, 3.

The very large amount of work (including weighing and measuring) required in dealing with malnourished children is making it difficult for the nurses to "follow up" adequately. Additional Nursing and Clinical Help is needed if "following up" and School Nursing are to be done adequately.

(7) MEDICAL TREATMENT.

Defects.	Mode of Treatment Available.	Number Treated.	Attendances for Treatment.
(*a*) Minor Ailments ...	Minor Ailments Clinic	203	2040
(*b*) Diseased Tonsils and Adenoids ...	Private Doctors	—	—
	Tonsil and Adenoid Clinic at Wood's Hospital...	44	—
	Other Means	6	—
(*c*) Tuberculosis	Private Doctors	—	—
	Tuberculosis Dispens'y	17	—
(*d*) Skin Diseases ...	Minor Ailments Clinic	13	—
(*e*) External Eye Disease	Minor Ailments Clinic	26	—
(*f*) Vision	Ophthalmic Clinic	72	—
(*g*) Ear Disease and Hearing	Minor Ailments Clinic	—	—
	No definite arrangements for operations. Hospital	28	—
(*h*) Dental Defects ...	Dental Clinic	623	1328
(*i*) Cripples	Orthopaedic Clinic ...	26	208
	In Hospital...	2	—
(*j*) U.V. Ray Clinic ...	... ...	57	914

The above table gives the number of children treated at the Clinics during 1937.

DENTAL CLINIC.

A full-time Dentist is now employed jointly by Hyde and Glossop Education Committees in the proportion of 7/11 of

the time for Hyde and 4/11 for Glossop. The service still is very much appreciated by parents, and refusals for treatment comparatively few.

Under Circular 1444 as it is laid down as a minimum that one dentist is to be responsible for not more than 5,000 children, it will be necessary to have more time given to dental work; 6 sessions will be needed instead of 4 for School work, plus one session in addition for Maternity and Child Welfare dental work.

EYE CLINIC.

This Clinic continues to do good work, glasses in addition to being supplied free in necessitous cases can also be obtained by other parents at reduced rates.

U.V. RAY CLINIC.

The number of treatments during the year was 914, and included cases of Enlarged Glands, Rheumatism, Chorea, Sleeplessness, Nervousness, Anaemia, etc.

(8) THE CONTROL OF INFECTIOUS DISEASES IN THE SCHOOLS.

No Schools were closed during 1937.

The procedure mentioned on Page 9 of the 1930 Report is still followed. Immunisation is carried out against Diphtheria; during 1937 42 were done.

(9) OPEN AIR EDUCATION.

There is no Open Air School in Glossop. The authority has asked Head Teachers to teach the children out of doors when possible.

(10) PHYSICAL TRAINING.

The teachers obtain special instruction in Physical Training, so that they can themselves teach the children. Re-organisation of Physical Education is now being made.

(11) PROVISION OF MEALS.

I append the following details regarding the above:—

Number of Individual children who received a sandwich and Milk Meal (free)	560
Total number of Individual children who received milk (milk paid for)	853
	1413

Above Figures are for September 30th, 1937.

Quantity of Milk given in each bottle: ⅓ pint.

Number of Sandwiches supplied free	56,701

Number of Bottles of Free Milk supplied	242,120
Number of Bottles of Milk (paid for) supplied	177,046
Total Bottles of Milk (free and paid for) ...	419,166
Number of Oranges given in summer	9,938

	£	s.	d.
Cost of Sandwiches	416	16	4
Cost of Free Milk	504	8	4
Payments Received for Milk paid for	368	16	11
Total Cost (Free and Paid for)	£1290	1	7
Oranges	£62	2	3

The milk is supplied in sealed bottles after being Pasteurised.

SCHOOL MEALS.

The method of feeding school children in Glossop was dealt with fully last year, since when there has been no alteration in the kind of meals given, which consists of: ⅓ to 1 pint of milk with sandwiches; the sandwiches being made of: Wholemeal bread 2 ozs., butter ½oz., Brewers' Yeast ⅛ oz. as base with, in rotation, cheese ¾ oz. 3 days a week, meat or egg ¾ oz. on other days with, in season, a raw vegetable, e.g., mustard and cress ½ oz., or lettuce or tomato ½ oz.

An orange with up to a pint of milk is given to each child in the summer instead of a sandwich and milk.

(12) CO-OPERATION OF PARENTS, Etc.

No alteration from previous years.

(13) BLIND, DEAF AND EPILEPTIC CHILDREN.

(*a*) Blind, Deaf and Epileptic children are found out as explained in last year's report.

(*b*) Arrangements are made with other Authorities for the residential institutional care of Mentally Defective school children. One such child is at present in an institution.

(*c*) The Authority has no Special School of its own. Arrangements are made with other Authorities to take children needing care in Special Schools.

The Authority has no Full Time Courses for Higher Education of Blind, Deaf, Defective and Epileptic children.

(14) SPECIAL TRAINING.

No children are having special training at present.

(15) NURSERY SCHOOLS.

The Authority has no Nursery School, but the question of Nursery Schools is at present under consideration.

(16) PARENTS' PAYMENTS.

The amount received from parents for the payment of treatment amounted to £31 19s. 0d.

(17) HEALTH EDUCATION.

A Dental Exhibition was held by the Dental Board on four days early in 1937.

During Health Week, 1937, Health Films were shown to all boys and girls over 10 years of age, by arrangement with the Derbyshire Health Week Committee.

"Better Health" is circulated among parents and school teachers.

SPECIAL INVESTIGATIONS REGARDNG THE NUTRITION OF SCHOOL CHILDREN INCLUDING FUNCTIONAL TESTS.

During 1937 I continued my investigations regarding the nutrition of school children and I include with my report tables giving individual weights, heights and strength in pounds as tested by the dynamometer, endurance in seconds as tested by hanging on a horizontal bar, the weight over height figure and the clinical assessment.

I give these figures as I think those who are interested in this question will be better able to judge the use of this method of assessing nutrition by reading and interpreting the results themselves. The tables should be read in conjunction with those in last year's and previous year's reports.

The inclusion of boys who have shown proficiency in athletics are put in to see if boys who show considerable physical fitness have any special nutritional pattern.

As my numbers are relatively small I do not want to unduly stress interpretations but rather to invite others to carry out investigations on similar lines so that this matter can be judged with greater exactitude.

I attach to this report, on page 29, figures giving the results up to date in Glossop of averages for the dynamometer test

(showing the pull in pounds divided by body weight in pounds) and also for the bar test.

Regarding the bar test I give averages for 423 boys from 8 to 14 years and these so far as they go would seem to show that from 9 to 14 years endurance is fairly constant varying from about 130 to 140 seconds on the bar.

Regarding the pull over weight (p/w) figure, analysis of the results obtained from testing 2,258 boys between 8 years and 18 years seem to show that from 10 years to 14 years strength per pound of body weight varies very slightly from 2.02 to 2.05 and that at 15 years as adolescence is accentuated the pull per pound of body weight increases.

There is, however, in all ages great variation in endurance and strength. In endurance the range is from about 50 seconds up to 300 for boys of 14 years and under and up to as high as 500 for older boys. The boy who had the 500 seconds endurance was a long distance runner; the same boy had a high strength (p/w) figure 2.68.

Three boys, good at Gymnastics, gave high endurance figures, 315, 250 and 355, and also high strength figures, 2.72, 2.73 and 2.82. Sprinting seems to be associated with a high strength (p/w) figure; one sprinter gave a p/w value of 3.01.

There most probably is something as well as strength and endurance needed for running—litheness of the limbs and quickness of action, etc., but to win through it would seem strength and endurance are both needed.

Glossop boys who were placed in the finals at the Coronation sports were weighed and measured and tested and the results can be seen in the tables. In some cases there were ties for places. All these runners did not give a high strength and endurance figure, but the average p/w figure for them (the Coronation sports' runners) was 2.24 as compared with an average of about 2 for all boys from 8 to 14 years.

Regarding endurance the difference is not so marked for these young sprinters, the average figure being about 140 compared with one between 130 and 140. Some boys had fairly high figures; a boy of 8 years gave a p/w figure of 2.88 and had an endurance of 160; a veritable pocket Samson he seemed to be. Another boy (13 years) gave figures of 2.51 for strength and 237 for endurance; this boy incidentally was in receipt of school meals as he had previously been poorly nourished and his parents were out of work.

The results of the fourteen years' group puzzled me as some of the figures were low but, as boys leave school at 14 years in elementary schools, the number of competitors of that

age were restricted and it is possible they won because they were bigger and older, but in the two schools' sports they competed with boys of 13 years with higher strength and endurance figures (2.33 and 120, 2.73 and 127) and these thirteen-year-olds beat them.

I have mentioned the boys competing at the Coronation Sports; along with these I weighed, measured and tested boy winners at the Grammar School Sports (1937), 20 boys in all, and of these 9 were above the Board of Education figures (1927) for weight divided by height, 8 were below it, one equal to the Board figure; in some cases the Board figure was not available. The boys therefore by that criterion had average body covering.

Fourteen out of the twenty were above the Board figure for weight; sixteen above the Board figure for height; and taking them as a whole one might say they were well-grown for their age with a slight tendency to slimness. When I get more figures (and I invite other areas to help me in this) I think it would be worth while to work out the correlations involved.

In the table on pages 30 & 31 I give a summary of the nutritional details; in this summary the most striking feature is stunting in growth of the children of the * unemployed and low wage earners; at every age the heights and weights on the average are less; this is very disquieting, yet it is only what we might expect from the money available for food.

In my report last year I gave (from an analysis of 52 budgets) details showing that the amount of family income per head per week was 7/9½, the amount spent on food being 4/4 per head, (5/3 per man value). The minimum amount of income found necessary by Mr. Seebohm Rowntree in his analysis of family budgets at York, was 53/- for a father, mother and three children; recently (March, 1938) Mr. Rowntree raised the figure to 55/-, i.e., 11/- per head; it is fairly obvious then that there is not sufficient income available to the unemployed and low wage earners for a minimum subsistence allowance, and food therefore is bound to be insufficient.

We have tried to get over this difficulty in Glossop by feeding the school children and giving milk (up to a pint) to those under school age, but it is evident that much more will

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*Since writing the above I notice in *The Medical Officer* for March 26th, 1938, an article by Dr. Kershaw, the M.O.H. of Accrington, in which he also finds after careful analysis of his findings, among other things, that "The children of unemployed parents are found to be notably inferior in height and weight to those whose parents are employed."

have to be given if this stunting is to be prevented. There is undoubtedly need for the better feeding of children under school age, allowing some children from 1½ years to 5 years ½ pint of milk (our usual allowance) is insufficient to make good the shortage in food essential for growth.

But it is true that, if we have not made these stunted children catch up to the others in growth, we have made them on the whole bodily efficient as judged by the functional tests, for they compare very favourably in this respect with their better-off colleagues. Before school feeding was started this was not the case for, both in strength and endurance (as pointed out in previous reports), these children were considerably below the average.

If we allow this stunting of growth to continue we cannot plead ignorance of what is required; we know (Sherman, etc.) that growing children require about 1 gram of Calcium and Phosphorus per head per day and that 10 to 15% of the total caloric requirements of the growing child should be obtained from protein (preferably 1st class protein) with an ample supply of vitamins A, B, C, D and B2 (American G), of which we can guage fairly accurately the amount required. For instance, Dr. Lishman, "*Medical Officer*" 12/3/38, gives a Table shewing that children from 3 years to 14 years have a B 1 deficiency of about 105-IU below 250-IU needed for the lower age, and 189-IU below the 450-IU for the higher age. This deficiency we have tried to correct in Glossop by whole meal sandwiches 2-ozs. (60-IU), Milk at least ⅔-pint (70-IU), and yeast ⅛-oz. (40-IU), total approximately 170-IU ; but older children get extra ⅓-pint of Milk containing about 36-IU, or 200-IU in all.

Sherman advises 1 quart of milk per day for a child; he quotes the Journal of the American Medical Association: " The dietary rule of a quart of milk each day for every child is much more than a precept based on individual opinions drawn by analogy from the results of feeding experiments on animals; it now rests on scientific evidence obtained by extensive and intensive experiments directly upon the children themselves."

Milk contains casein and lactalbumin and these taken together are rich in lysine, tryptophane, histidine, and cystine, which are the chief growth promoting amino—acids of protein, hence one reason of its importance for the growing boy and girl; it also contains the minerals Calcium and Phosphorous in high amount. Edestine (from Hemp Seed) soya bean, eggs and meat contain the growth elements (especially lysine) also whole wheat meal, though it is rather short of lysine. Perhaps a cheap way of making up the shortage of these elements of diet might be by adding preparations of soya bean and hemp seed to the diets, though they would not provide sufficient minerals, especially calcium.

Everything considered, it seems that a far bigger diversion of milk and milk products and of fruit and fresh vegetables in the direction of the children of this country is what is chiefly required to promote their health and nutrition.

WHAT IS GOOD OR BAD NUTRITION?

Nutrition is a hard-worked word nowadays, but have we any accurate idea of what we mean when we say a boy or girl is of good or bad nutrition? It is indeed questionable. Various workers in nutrition have different conceptions of what they mean by it.

In this report I have tried, in the tables given, to show what are its essentials and these, I believe to be (I am talking of children),—proper growth in height and weight for age, and as regards the skeleton and body, sufficient covering for height, (a child that is stunted in growth shows, I believe, one of the stigmata of malnutrition), good physique shown by no flabbiness, lack of tone, poor muscular development, etc. A boy or girl of poor physique may be in height and weight up to standard and on the other hand one under the standard for height and weight may be of good physique though small for age, i.e., he or she is strong and well developed for their size. Then there are all the various defects and diseases found in clinical examination which may show a child to be malnourished—rickets and such like, and and to these defects and diseases we now might add Hypovitamosis (A.B.C.D. etc.), as shown by bodily evidence of disease or by actual tests for the presence or absence of the vitamin in the body.

To the above, growth, physique and evidence of nutrition as shown by clinical examination, I would add evidence of strength and endurance as shown by specific tests. A body that is lacking in one or other or both of these two things (strength and endurance) is useless for life and, that being so, they must be taken into account in considering nutrition. Both can be caused by shortage of food, by inappropriate food, or lack of proper assimilation of food. To test for these qualities in a child I have used certain functional tests, one for strength by Dynamometer, and one for endurance by getting the child to hang on a horizontal bar; they can be carried out readily though care is needed to ensure accuracy.

I have in this report given the averages found at various ages for both tests, but it would be very helpful indeed if workers in other areas would carry them out on a larger scale. I see Dr. J. Mc. Gibson, M.O.H. of Huddersfield, who carried out a large number of Dynamometer tests several years ago, and whose results are included in this report with mine, carried out tests in 1937 at the Huddersfield Residential Open-Air School. These tests were taken at monthly intervals along with

measurements of height and weight, the Romberg test, estimations of percentage of Haemoglobin and co-ordination tests.

While the figures are too small to form conclusions from, they show that in addition to increases in height and weight after the first month the children gave a higher p/w figure for strength, a higher Romberg figure and an increased Haemoglobin percentage.

In Glossop I found that the p/w figure and endurance were both increased among children of the unemployed after they had been given school meals; the strength increase with the haemoglobin increase shown at Huddersfield may be significant then.

In considering nutrition what I want to stress is that in any estimation of nutrition bodily efficiency as shown by actual performance must be taken into account; it is what one does or can do that matters, not what one looks like, for sometimes the most unpromising looking child will, when tested, come out quite well like the boy I dubbed the pocket Samson, who, though only 8 years old and undersized, had the strength of a boy of eleven. One would never dream of passing a machine as efficient without a test, no more then should we think of passing a human being, for *it is the whole efficiency of what is under the skin that matters—the functioning of the various organs, cells and systems of the body and we are merely guessing in the dark if we try to decide on that by a mere outside examination.*

Tests of some sort for bodily efficiency, in my opinion, have for another reason become a necessity, i.e. the increased amount of physical training now given in our schools; to put children through severe physical exercises for which they are unfit is not only an injurious but thoughtlessly cruel procedure for which there can be no reasonable or valid excuse.

In this report (Table pages 30 to 31) it will be seen that the children of the unemployed and low wage earners who are having school meals, though they are stunted in height and weight, have good strength and endurance for their size. This is important, for it shows that if growth lost cannot be regained, function can be restored by our school feeding and the children made efficient, and it is efficiency that counts most.

So let us continue to do all we can to stop the lack of growth caused by lack of sufficient and proper food, both during and before school age, for we have gone at least part of the way towards the goal of good nutrition. One mile-stone has been passed. We have found means to give our school children that strength and endurance which will be necessary for their life's work when they leave school, and the money spent in doing it has been money well spent.

Nutritional Details including Functional Tests of Boys having School Meals in Glossop.

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment
BOYS AGED 7.								
6	7	45	45·5	78	1·73		0·98	B
6	9	42·75	43·5	93	2·18	120	0·98	C
BOYS AGED 8.								
8	1	44·	47·	87	1·97	98	0·93	C
7	9	49·56	47·75	95	1·91	84	1·03	C (Glands)
8	4	50·25	45·5	100·5	2·00	120	1·10	C
8	5	50·75	48	92.5	1·82	80	1·05	C
BOYS AGED 9.								
8	7	61·25	51	135	2·20	135	1·20	A
9	0	51·5	46	127	2·46	75	1·11	C
9	5	70·43	54·5	127	1·80	130	1·29	B
BOYS AGED 10.								
9	8	60	49·75	145	2·41	95	1·2	C
10	5	69	55·75	130	1·88	110	1·23	B
10	2	62	53	107	1·81	150	1·169	B
10	0	59·62	52·25	152	2·55	160	1·14	B
BOYS AGED 11.								
10	8	62·25	50·25	150	2·40	130	1·23	B
11	1	56·75	52·5	120	2·11	106	1·08	C
11	1	73·75	55·5	138	1·87	107	1·32	B
11	4	73·1	57	155	2·12	140	1·30	B
11	5	49·9	46	152	3·04	90	1·08	C
11	4	68·56	53	136	1·99	121	1·31	C
10	11	61·5	51 5	126	2·04	105	1·19	B
10	10	56	50	100	1·78	98	1·12	B
BOYS AGED 12.								
12	1	66·37	54·5	117	1·76	100	1·22	C (Anæmia)
11	10	79·5	59	143·5	1·80	200	1·35	B
11	8	75	55	150	2·00	155	1·36	B
BOYS AGED 13.								
13	0	86·2	57·25	200	2·32	100	1·50	B
13	5	77	58·5	160	2·07	200	1·31	C
12	2	64·75	55·5	140	2·15	170	1·17	C (Enlarged Glands)

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment
BOYS AGED **14**.								
14	1	112	65·25	183	1·63	100	1·68	A
13	9	95·75	58·25	245	2·55	110	1·64	B
14	0	96·25	59·88	185	1·92	110	1·60	B
13	7	74·02	56·5	175	2·36	130	1·31	B
13	8	82	52·5	125	1·52	100	1·56	B
13	9	61	49·25	190	2·11	125	1·24	C (Under size)
14	1	86	60·5	195	2·21	165	1·42	B
14	0	87·62	59·0	140	1·59	140	1·47	B
Employeds' Children.								
BOYS AGED **8**.								
8	3	60	51	113	1·88	100	1·1	B
8	5	64·5	54	120	1·87	115	1·19	B
8	4	55·5	51	108	1·94	80	1·08	B
8	4	56	47	105	1·87	100	1·19	B
8	4	52·5	48	112	2·13	130	1·09	B
8	0	56·5	50·5	103	1·82	75	1·12	B
8	0	57	49	96	1·72	115	1·16	B
8	2	56·5	49	108	1·91	70	1·15	B
8	1	55	49·5	101	1·81	75	1·11	C
8	2	53·5	50	92·5	1·73	120	1·07	A
8	0	46·75	46·8	110	2·57	115	1·00	B
8	0	37·75	45·5	79	2·09	115	0·74	C (Under size)
7	10	56·25	50·75	101	1·79	110	1·11	A
7	8	53	49	91	1·73	110	1·08	B
8	0	45·75	46	95	2·08	100	1·00	B
7	10	60·5	49·5	98	1·62	113	1·22	B
8	2	48	48	72	1·50	80	1·00	C
7	10	62·75	51·5	125	1·99	150	1·22	A
7	11	53·5	48	90	1·64	140	1·11	B
7	9	52·85	44	105	1·98	112	1·20	B
7	11	51·43	45	146	2·84	120	1·14	B (Small)
8	0	45·25	47	92	2·03	110	0·96	C (T.B. Glands)
BOYS AGED **9**.								
9	4	65·87	53·75	122	1·85	120	1.23	B
9	3	69·12	52·5	101	1·46	80	1·32	B (Had double Mastoids 5 years before)

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment
9	2	57·75	50·75	129	2·24	100	1·14	B
9	3	57	51·25	108	1·89	100	1·11	B
9	1	65·43	53·75	117	1·78	130	1·22	B
9	3	65·25	54·25	116	1·77	100	1·20	A
8	9	63·56	49·25	158	2·48	100	1·29	B
8	11	59·75	52·5	119·5	2·00	190	1·14	B
9	4	56·5	52	109	1·92	85	1·09	B
9	0	57·5	50	130	2·17	125	1·15	A
9	8	56	50·5	110	1·96	100	1·11	B
8	8	53·5	48·5	92	1·73	95	1·10	C B (Adenoids slight)
8	10	68·56	52 5	122	1·78	127	1·31	A
9	0	55·75	49·25	117·5	2·10	145	1·13	B
9	4	61·93	50·25	116	1·87	115	1·23	B
9	2	67·56	50·75	103	1·52	97	1·33	B
9	0	65·31	53·75	145	2·20	235	1·22	B
8	11	72·68	53·75	122·5	1·68	98	1·35	B
9	2	55·8	50	101	1·81	100	1·11	B
BOYS AGED **10**.								
10	4	67·8	56	140	2·06	135	1·21	B
9	9	65·8	53·9	129	1·96	210	1·22	B
10	3	53·75	53	108	2·01	140	1·01	B (Thin and wirey)
10	0	81·5	57·5	132 5	1·62	110	1·42	A (Heavy and flabby)
10	0	59·6	52·5	119·5	2·0	160	1·14	B
10	0	58	51	140	2·41	150	1·14	B
10	1	64	54·5	128	2·0	150	1·17	B
10	4	69·25	54·75	139	2·00	150	1·26	B
10	4	60·5	51·25	151	2·51	140	1·18	B
10	4	73·12	55·75	163	2·22	100	1·31	B
10	3	63	51·75	164·5	2·61	103	1·22	B
10	5	70	54·5	142	2·61	100	1·28	B
10	5	62·25	54	142	2·28	150	1·15	B
9	10	61·5	53·75	139	2·26	132	1·14	B
10	2	66·25	53·75	132·5	2·00	112	1·23	B
9	11	61·25	55 25	110·5	1·80	115	1·11	B
9	7	69·25	54·75	136	1·96	120	1·26	B
10	1	58	52·5	125	2·15	100	1·10	B
9	11	69·1	54·5	126	1·82	127	1·27	B
10	1	52·5	51·5	104	1·98	320	1·02	C
9	9	85·56	58	177·5	2·07	145	1·47	A
9	7	58·25	52	116·5	2·00	120	1·12	C

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment
BOYS AGED 11.								
11	1	75·25	55	178	2·36	160	1·37	A
11	0	65·4	54	158	2·40	200	1·22	A
10	10	74	54	165	2·23	125	1·37	A
11	0	65·6	54·75	170	2·58	150	1·22	A
11	5	80·5	58·5	200	2·23	150	1·38	A
11	2	71·5	56·25	138	1·93	105	1·27	B
11	0	79	55·5	140	1 77	100	1·42	B
11	0	62·25	53·87	102	1·63	120	1·16	C
11	0	85·00	57·25	136	1·60	105	1·48	B
11	5	70	54·25	176·5	2·52	130	1·29	B
11	0	64·75	54	113·5	1·75	105	1·20	B
11	2	60	51	119	1·98	105	1·18	B
11	6	73	54	160	2·19	85	1 35	B (Small Build)
BOYS AGED 12.								
11	9	76	55·5	120	1·57	75	1·37	C
12	5	80·25	56·5	185	2·31	100	1·42	B
12	1	79	58·25	160	2·02	180	1·36	B
12	2	59·75	54	123	2·13	200	1·11	B
12	2	76·5	59	141	1·85	105	1·30	C
12	0	75	54·75	168	2·24	165	1·37	B
12	5	69·5	56	170	2·44	270	1·24	B
12	4	72	55·5	145	2·01	195	1·30	B
12	4	84·43	56·5	200	2·36	100	1·49	B
12	0	71·75	54·25	148	2·04	220	1·32	B
11	9	65·5	54·87	146	2·22	105	1·19	B
12	5	78·5	56·87	141	1·79	140	1·38	B
12	5	59	51·5	123	2·08	105	1·15	C (Stunted Growth)
12	0	70	54·87	160	2·28	190	1·28	B
12	0	74·5	55	191	2·56	150	1·35	B
11	9	65·6	56·1	115	1·75	305	1·17	B
BOYS AGED 13.								
12	9	93·75	58·75	193	2·05	80	1·60	A
12	8	100·25	63·25	217	2·16	100	1·58	A
12	7	70	54·25	150	2·14	150	1·29	B
12	11	78·5	56·5	162	2·06	105	1·39	B
12	7	111·5	63	178	1·59	100	1·82	C
12	7	56·25	53	122	2·16	130	1·06	B
12	7	76·5	57·5	200	2·60	205	1·33	B
12	7	83·5	56·5	160	1·91	120	1·49	B

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight.	Time on Bar in Seconds.	Weight over Height.	Clinical Assessment
12	8	80·5	58·85	175	2·17	200	1·37	C (Walks in sleep)
12	7	91·25	59·12	224	2·45	200	1.54	B
12	8	67	54	173	2·58	120	1·24	B (Small type)
12	7	66	55·5	158	2·54	210	1·19	B
BOYS AGED 14								
14	2	114·5	64·5	258	2·25	123	1·77	A
14	4	100	57	210	2·10	100	1·75	A
14	1	136·5	68·25	254	1·88	150	2·00	A
13	9	103	62	215	2·08	105	1·66	A
13	8	78	56·5	187	2·39	200	1·38	B
13	9	92	59·5	195	2·19	205	1·54	B
14	0	105·5	65	188	1·68	168	1·62	A

Boys who have shown Ability in Athletics.

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment and Proficiency.
AGE 8.								
7	9	49·25	47·25	142	2·88	160	1·04	B 1st in 50 yards in Coronation Sports
AGE 9.								
8	8	64·5	51·75	130	2·01	80	1·246	B 1st in 80 yards in Coronation Sports
9	6	62·5	51·75	133	2·08	135	1·21	B 2nd in 80 yards in Coronation Sports
9	4	65·5	53	128	1·96	200	1·23	B 1st in 80 yards in Coronation Sports
AGE 10.								
9	11	65	53·5	130	2·00	100	1·21	B 2nd in 80 yards in Coronation Sports
9	7	66·12	52·5	132	2·00	100	1·26	B 4th in 80 yards in Coronation Sports
10	6	81·5	56·75	163	2·00	120	1·44	A 1st in 80 yards in Coronation Sports
AGE 11.								
11	1	71·62	53·25	158	2·20	135	1·34	B 2nd in 100 yards in Coronati'n Sports
10	7	58·5	52·5	157	2·69	150	1·11	B 1st in 100 yards in Coronati'n Sports
10	11	69·75	55	135	1·93	100	1·27	B 1st in 100 yards in Coronati'n Sports
AGE 12.								
11	7	83	57·5	170	2·04	125	1·44	B 1st in 80 yards in Coronation Sports
12	6	91·25	59·12	224	2·45	200	1·54	A 1st in 100 yards in School Sports
12	5	79 75	57·5	197	2·47	121·5	1·39	B 1st High Jump in School Sports
12	2	65·25	55	191	2·93	127·5	1·19	B 2nd High Jump in School Sports
12	1	79	57·5	212	2·69	115	1·37	B 3rd High Jump in School Sports
12	2	67	54·5	156	2·34	122	1·23	2nd in 100 yards in School Sports
12	4	91·0	59	211	2·32	89	1·54	A 1st in Long and 2nd in High Jump in School Sports

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment and Proficiency.
12	6	86·62	58·75	183	2·12	117	1·47	B 2nd High Jump in School Sports
12	6	93	60·75	180	1.94	200	1·53	A 1st in 100, 220 & 440 yards in School Sports
12	6	66	55·5	168	2·54	210	1·18	B 2nd in 220, 3rd in 440, 4th in 100 yards in School Sports
AGE 13.								
12	10	96	58	231	2·40	105	1·65	A 2nd in 100 yards in Coronati'n Sports
12	11	66·5	53·5	145	2·18	165	1·24	C 3rd in 100 yards in Coronati'n Sports
12	7	58·3	56	147·5	2·51	237	1·04	B (small) 2nd in 100 yards in Coronation Sports
13	5	84 5	57	177	2·09	125	1·48	B 1st in 100 yards in Coronati'n Sports
13	5	93·75	62·5	227	2·42	140	1·49	A 2nd Senior High Jump in School Sports
12	8	79·75	59·75	200	2·76	107·5	1·33	B 3rd Senior High Jump in School Sports
13	5	109	60·5	259	2·33	120	1·80	A 1st in 100 & 220 yards in Sch'l Spts.
12	8	71·75	55	194	2·7	152	1·12	B 1st in 100 yards (Junior) in School Sports
12	9	78·18	58·25	123	1·64	68	1·30	B 1st Junior High Jump in School Sports
13	1	86	59	235	2·73	127	1·45	B 1st in 220 & 440 yards in School
13	1	85	56	208	2·44	128	1·31	1st in Sack Race in School Sports
AGE 14.								
14	0	91·18	64·5	199	2·19	87·5	1 41	B 3rd in 100 yards in School Sports
14	0	89·25	59·75	204	2·29	117·5	1·49	B 2nd in 100 yards and 3rd in Half-mile in School Sports

Age. Years.	Months.	Weight in lbs.	Height in Inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment and Proficiency.
14	0	75·75	59·35	143	1·89	75	1·28	B 4th in High Jump in School Sports
13	10	86·75	61·5	159	1·84	65	1·41	B 1st in High Jump in School Sports
14	2	90·7	62·	248	2·74	82·5	1·46	A 2nd in Throwing Cricket Ball in Sch. Sports
13	11	85·12	60·5	199	2·34	83	1·31	B 2nd in 200 & 440 yards in Sch. Sports
14	0	121·62	66	222	1·83	85	1·84	A 2nd Senior High Jump, 3rd in 220 yard2 in Sch. Sports
13	8	85	60·5	184	2·16	110	1·40	B 3rd in Senior 440 yards in Sch. Sports
14	0	105·5	65	188	1·78	168	1·62	A 1st in 440 yards, 2nd in 100 yards & 3rd in 220 yards in School Sports
14	4	126	66·25	253	2·0	150	1·90	A 2nd in High J'mp in School Sperts
14	4	110	62·75	212	1·92	60	1·75	A 1st in High Jump in School Sports
13	7	85	59·5	253	2·9	165	1·43	B 1st in 100 yards in Coronati'n Sports
AGE 15.								
14	10	100·5	62·75	227	2·26	105	1·60	1st in Half-mile, 2nd in 220 yards & 1st in Obstacle Race in School Sports
14	9	73·25	58·25	168	2·3	173	1·26	3rd in Obstacle Race in Sch. Sports
15	4	137·5	67·2	263	1·97	97	2·02	1st in Obstacle Race in Sch· Sports
15	0	122·75	62·6	270	2·20	120	1·94	1st in Long Jump and 100 yards, 220 and · 440 yards in School Sports
15	0	106	63·75	245	2·31	100	1·66	2nd in 220 & 440 yards in Sch. Sports
14	10	109	61·8	267	2·44	90	1·76	1st Obstacle Race in School Sports
15	5	123	67·37	311	2·52	270	1·82	Sprinting

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight	Time on Bar in Seconds	Weight over Height	Clinical Assessment and Proficiency.
AGE **16.**								
15	7	96·75	60·75	180	1·86	117·5	1·59	1st in Throwing Ball in Sch. Sports
16	3	103·5	62·75	272	2·63	127	1·75	2nd in Sack Race in School Sports
15	7	112	65·75	269	2·40	105	1·60	1st in 100 yards in School Sports
16	2	124	67	263	2·12	65	1·85	2nd in 100 yards in School Sports
15	8	142	67	320	2·25	90	2·11	2nd in 220 yards in School Sports
15	9	120	66·25	277	2·30	134	1·81	1st in High Jump in School Sports
15	8	129	66·5	300	2·32	105	1·93	1st in 220 & 240 yards in Sch. Sports
16	2	157	70·75	435	2·77	210	2·21	Middle distance running in Sch. Spt
16	6	123	65·25	335	2·72	250	1·88	Gymnastics and Boxing in Sch. Spt.
16	6	149·5	68·75	358	2·40	130	2·17	1st in High Jump 2nd in Long Jump and 3rd in 220 & 400 yards in Sch. Sports
16	6	149·5	70	380	2·53	165	2·13	3rd in High Jump and 3rd in Throwing Cricket Ball in Sch. Sports
AGE **17.**								
17	4	147	68·5	304	2·04	165	2·14	A Won Senior 100, 220 & 440 yards, & Long Jump in Sch. Sports
16	9	146·5	69·5	349	2·38	130	2·17	A 2rd in Senior Lg in School Sports
16	8	15·2	72·5	391	2·57	165	2·09	Running, Middle Distance
16	9	1·14	62·75	312	2·73	315	1·816	Gymnast
16	10	130	65·62	347	2·75	155	1·98	Sprinting
17	3	133	71·37	313·5	2·35	270	1·86	High Jump
16	10	149	67·75	448·5	3·01	175	2·19	Sprinting
17	0	183	71·25	478	2·61	80	2·56	Weight Putting & Fencing

Age. Years.	Months.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull over Weight.	Time on Bar in Seconds.	Weight over Height	Clinical Assessment and Proficiency
17	5	...151	... 72	... 335	... 2 21	...160	... 2·09	Distance Running
17	6	...157	... 67	... 453	... 2·83	...135	... 2·34	Sprinting
17	2	...150	... 71·5	... 344·5	... 2·29	...148	.. 2·097	Swimming
17	6	...149	... 71·5	... 329	... 2·20	...200	... 2·08	Cricket
17	2	...148	... 70 75	... 399	... 2·69	...110	... 2·09	Boxing
AGE 18								
18	2	...187	... 72·37	... 507·5	... 2·71	.. 285	... 2·58	Weight Putting
18	2	..161	... 72·87	... 409·5	... 2·54	...190	... 2·21	Discus
18	2	...182	... 71·87	... 409 5	... 2·24	...120	... 2·53	Weight Putting
17	8	...148	... 69·5	... 444	... 3·00	...300	... 2·13	Boxing
17	10	...147	... 70·75	... 382·5	... 2·64	...127	... 2·07	Hurdles
18	2	...116	... 67·25	... 311	... 2·68	...500	... 1·72	Long Distance Running
17	8	...120·87	... 67	... 280	... 2·31	...120	... 1·80	2nd in 100, 220 & 440 yards, Sch. Sptr
18	0	...126	... 65·87	... 356	... 2·20	...355	... 1 91	Gymnast
17	8	...168	... 71·75	... 359	... 2·17	...140	... 2·34	Boxing
17	8	...151	... 70·5	... 430·5	... 2·85	...155	... 2·14	Boxing

RESULTS OF DYNAMOMETER TESTS.

GIVING PULL IN POUNDS DIVIDED BY WEIGHT IN POUNDS AT DIFFERENT AGES AMONG ELEMENTARY AND SECONDARY SCHOOL BOYS IN GLOSSOP AND HUDDERSFIELD.

A mixed group of children consisting of 2,258 Boys made up of Glossop Elementary School children (899), Glossop Secondary School Boys of 10 years and older (167) and Huddersfield Secondary School boys of 10 years and older (1,282) had their strength tested on the Dynamometer and the results obtained in pounds divided by weights are herewith recorded; i.e., their $\frac{P}{W}$ figure:—

Boys 8 years (64), 1.87; boys 9 years (61), 1.92; boys 10 years (113), 2.04; boys 11 years (313), 2.02; boys 12 years (582), 2.08; boys 13 years (517), 2.03; boys 14 years (437), 2.05; boys 15 years (167), 2.14; boys 16 years (61), 2.27; boys 17 years (22), 2.33; boys 18 years (18), 2.40.

The figures in brackets give the numbers tested at each age.

RESULTS OF TESTS FOR ENDURANCE BY THE BAR TEST IN BOYS (AVERAGES GIVEN IN SECONDS).

Age 8	(53)	105.	Age 9	(53)	130.9.
Age 10	(55)	133.2.	Age 13	(44)	130.5.
Age 12	(89)	134.8.	Age 13	(78)	140.
Age 14	(51)	131.6.			

The figures in brackets indicate the number tested at each age.

Of the above boys, 3 of eleven years, 13 of twelve years, 19 of thirteen years and 2 of fourteen years were Warrington school boys, who gave an average bar figure of 136 seconds.

NUTRITION DATA. TABLE OF GLOSSOP BOYS HAVING SCHOOL MEALS.

Comparing Average Weights, Heights, Total Pull on Dynamometer in lbs., Pull divided by Weight (in lbs.), and Time (in seconds) on Horizontal Bar of Glossop (Meals) Boys (fed at least 1 year) with *Children of Employed Parents, Board of Education Figures for 1927 and other data.

Average of: Age Groups (No. in brackets equals No. tested)	Mean Age. Yrs.	Mths.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull in lbs. Wt. in lbs.	Hanging on bar. Time in secs.	Weight in lbs. Height in ins.
Eight Years.								
Glossop (Meals) Children (20)	7	11	49.9	47.08	96	1.92	109	1.06
Glossop Employed's Children (33) ...	8	1	*54	*48.72	104.2	1.93	102.3	1.10
Board of Education Review, 1927...	.....		51.0	47.8				
Nine Years.								
Glossop (Meals) Children (19)	9	0	56.8	49.2	118.7	2.09	157.3	1.15
Glossop Employed's Children (34) ...	9	1	61.5	51.5	114.6	1.86	116.1	1.19
Board of Education Review, 1927...	.....		54.8	49.2				
Ten Years.								
Glossop (Meals) Children (23)	10	1	62.3	52.96	128	2.05	126.5	1.17
Glossop Employed's Children (32) ...	10	1	65.15	53.46	133.7	2.05	138	1.21
Huddersfield & Glossop Children (113)	.....					2.04		
Board of Education Review, 1927...	.....		59.6	51.3				
Eleven Years.								
†Glossop (Meals) Children (18)	11	1	63.00	52.8	141.5	2.15	131.5	1.19
†Glossop Employed's Children (23) ...	11	1	73.88	54.73	140.2	2.10	127	1.34
Huddersfield & Glossop Children (313)	.....					2.02		
Warrington & Glossop Children (44)	.....						130.5	
Board of Education Review, 1927...	.....		64.6	52.7				

†Boys (76) average age 10 years 9 months at the Anthropometric Inquiry, 1927, (Glossop figures) were a Mean Height of 52.8 inches and Mean Weights of 65.3 lbs.

*Per random sampling.

Average of:

Age Groups (No. in brackets equals No. tested)

Twelve Years.	Mean Age. Yrs.	Mths.	Weight in lbs.	Height in inches.	Total Pull in lbs.	Pull in lbs. Wt. in lbs.	Hanging on bar. Time in secs.	Weight in lbs. Height in ins.
Glossop (Meals) Children (20)	12	1	68.80	54.75	148.6	2.16	149	1.25
Glossop Employed's Children (47) ...	12	0	77.59	58.01	155.7	2.009	154.6	1.33
Huddersfield & Glossop Children (582)	.....					2.08		
Warrington & Glossop Children (89)...	.....						134.8	
Board of Education Review, 1927...	.....		71.6	55.0				
Thirteen Years.								
Glossop (Meals) Children (20)	13	2	76.95	57.06	163.5	2.12	142.5	1.34
Glossop Employed's Children (39) ...	12	11	83.63	60.0	167	2.05	140.3	1.39
Huddersfield & Glossop Children (517)	.....					2.03		
Warrington & Glossop Children (78)	.....						140	
Board of Education Review, 1927...	.....		76.5	56.2				
Fourteen Years.								
Glossop (Meals) Children (18)	13	11	84.93	58.14	173.3	2.03	130.5	1.43
Glossop Employed's Children (31) ...	13	11	93.6	60.37	191.8	2.04	134	1.51
Huddersfield & Glossop Children (437)	.....					2.05		
Glossop and Warrington Children (51)	.....						131.6	
Board of Education Review, 1927...	.....		86.1	58.0				

BOROUGH OF GLOSSOP.
1937.

Table I.—Return of Medical Inspections.

A. ROUTINE MEDICAL INSPECTIONS.

Number of Code Group Inspections. (*see note b*).	
Entrants	241
Second Age Group	223
Third Age Group	202
Total	666
Number of other Routine Inspections ... ... (*see note c*).	0
Total	666

B. OTHER INSPECTIONS.

Number of Special Inspections ... ... (*see note d*).	2285
Number of Re-inspections ... ... (*see note e*).	2862
Total	5147
Total (all inspections)	5813

C.—CHILDREN FOUND TO REQUIRE TREATMENT.

Number of individual Children (*see note f.*) found at Routine Medical Inspection to Require Treatment (excluding Defects of Nutrition, Uncleanliness and Dental Diseases).

Prescribed Groups :

Group.	For Defective Vision (excluding Squint)	For all other conditions recorded in Table II A	Total
Entrants	0 ...	39 ...	39
Second Age Group	12 ...	22 ...	32
Third Age Group	13 ...	13 ...	24
Total (Prescribed Groups)...	25 ...	74 ...	95
Other Routine Inspections...	0 ..	0 ...	0
Grand Total	25 ...	74 ...	95

Table II.—A. Return of Defects found by Medical Inspection in Year ended 31st December.

Defect or Disease.	Routine Inspections. No. of Defects. Requiring Treatment.	Routine Inspections. No. of Defects. Requiring to be kept under observation, but not requiring Treatment.	Special Inspections. No. of Defects. Requiring Treatment.	Special Inspections. No. of Defects. Requiring to be kept under observation, but not requiring Treatment.
(1)	(2)	(3)	(4)	(5)
Skin — Ringworm: Scalp	—	—	1	—
Skin — Ringworm: Body	—	—	2	—
Skin — Scabies	—	—	3	—
Skin — Impetigo	—	1	2	—
Skin — Other Diseases (non-Tubercular)	3	—	1	—
Skin — Total (Heads 1 to 5)	3	1	9	—
Eye — Blepharitis	—	—	6	—
Eye — Conjunctivitis	—	—	8	—
Eye — Keratitis	—	—	—	—
Eye — Corneal Opacities	—	—	—	—
Eye — Other Conditions	—	1	29	—
Eye — Total (Heads 6 to 10)	—	1	43	—
Eye — Defective Vision (excluding Squint)	25	0	39	—
Eye — Squint	8	—	9	—
Ear — Defective Hearing	4	—	5	—
Ear — Otitis Media	7	—	20	—
Ear — Other Ear Diseases	1	—	6	—
Nose and Throat — Chronic Tonsillitis only	11	7	5	1
Nose and Throat — Adenoids only	1	11	10	—
Nose and Throat — Chronic Tonsillitis and Adenoids	3	—	10	—
Nose and Throat — Other Conditions	—	1	4	—
Enlarged Cervical Glands (Non-Tuberculous)	2	14	6	6
Defective Speech	4	1	1	—

TABLE II.—*continued.*

(1)		(2)	(3)	(4)	(5)
Heart and Circulation	Heart Disease :				
	Organic	5	—	8	—
	Functional	1	21	3	2
	Anæmia	6	3	6	—
Lungs	Bronchitis	5	3	9	2
	Other Non-Tubercular Diseases	—	—	1	—
Tuberculosis	Pulmonary :				
	Definite	—	—	—	—
	Suspected	1	1	—	—
	Non-Pulmonary :				
	Glands	3	—	5	—
	Spine	—	—	—	—
	Hip	—	—	—	—
	Other Bones and Joints ..	1	—	—	—
	Skin	—	—	—	—
	Other Forms...	1	1	1	2
	Total (Heads 29 to 32) ..	5	1	6	2
Nervous System	Mild Epilepsy	2	...	2	—
	Chorea	—	2	6	—
	Other Condition	—	—	2	—
Deformities	Rickets	2	6	1	—
	Spinal Curvature	1	—	1	—
	Other Forms	12	3	16	—
Other Defects and Diseases (excluding Uncleanliness and Dental Diseases)..		8	8	164	—
Total		117	84	392	13

B. CLASSIFICATION OF THE NUTRITION OF CHILDREN INSPECTED DURING THE YEAR IN THE ROUTINE AGE GROUPS.

Age-Groups.	Number of Children Inspected.	A (Excellent)		B (Normal)		C (Slightly subnormal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants	241	46	19·0	152	63·0	39	16·1	4	1·6
Second Age-Group	223	36	16·1	151	67.7	29	13·0	7	3·1
Third Age-Group...	202	47	23·2	124	61·3	29	14·3	2	·99
Other Routine Inspection ...	—	—	—	—	—	—	—	—	—
Total	666	129	19·3	427	64·1	97	14·5	13	1·9

Table III.—Return of all Exceptional Children in the Area (see Note a).

BLIND CHILDREN.

At Certified Schools for the Blind.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	0	0	0	0

PARTIALLY SIGHTED CHILDREN.

At Certified Schools for the Blind.	At Certified Schools for the Partially Sighted.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution	Total.
0	0	0	0	1	1

DEAF CHILDREN.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
1	0	0	0	1

PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf.	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution	Total.
0	0	1	0	0	1

TABLE III.—*continued.*

MENTALLY DEFECTIVE CHILDREN.

FEEBLE-MINDED CHILDREN.

At Certified Schools for Mentally Defective Children.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
1	6	0	0	7

EPILEPTIC CHILDREN.

CHILDREN SUFFERING FROM SEVERE EPILEPSY.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	0	0	0	0

PHYSICALLY DEFECTIVE CHILDREN.

A.—TUBERCULOUS CHILDREN.

I.—CHILDREN SUFFERING FROM PULMONARY TUBERCULOSIS.

(Including Pleura and Intra-Thoracic Glands).

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	1	1	0	2

TABLE III.—*continued.*

II.—CHILDREN SUFFERING FROM NON-PULMONARY TUBERCULOSIS.

(This category includes Tuberculosis of all sites other than those shown in (I) above).

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	10	3	2	15

B.—DELICATE CHILDREN.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	0	0	0	0

C.—CRIPPLED CHILDREN.

This Section should be confined to children (other than those diagnosed as tuberculous and in need of treatment for that disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life, i.e., children who generally speaking are unable to take part, in any complete sense, in physical exercises or games or such activities of the school curriculum as gardening or forms of handwork usually engaged in by other children, and in whose case the Medical Officer would be prepared to certify under Section 55 of the Education Act, 1921, that they are incapable by reason of such physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	0	0	1	1

TABLE III.—*continued.*

D.—CHILDREN WITH HEART DISEASE.

This Section should be confined to children in whose case the Medical Officer would be prepared to certify, under Section 55 of the Education Act, 1921, that they are incapable by reason of such physical defect of receiving proper benefit from the instruction in the ordinary Public Elementary Schools.

At Certified Special Schools.	At Public Elementary Schools.	At Other Institutions.	At no School or Institution.	Total.
0	0	0	1	1

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Information is only required in respect of children suffering from any combination of the following types of defect:—

Blindness (not Partial Blindness).
Deafness (not Partial Deafness).
Mental Defect.
Epilepsy.
Active Tuberculosis.
Crippling (as defined in the penultimate category of the Table).
Heart Disease.

		TOTAL.
Mentally Defective and Cripple (at no school or institution) ...	1 (Fredericks Ataxia and Mentally Defective).	1 No others.

Table IV.—Return of Defects Treated during the Year ended 31st December.

(See note a).

TREATMENT TABLE.

GROUP I.—MINOR AILMENTS, excluding Uncleanliness, for which see Group 6.

Disease or Defect.	Number of Defects treated, or under treatment during the year.		
	Under the Authority's Scheme.	Otherwise.	Total.
1	2	3	4
SKIN :—			
Ringworm—Scalp—			
(i.) X-Ray Treatment	—	—	—
(ii.) Other Treatment	1	—	1
Ringworm—Body	2	—	2
Scabies	3	—	3
Impetigo	2	—	2
Other skin disease	5	—	5
MINOR EYE DEFECTS ... . External and other, but excluding cases falling in Group II.	26	—	26
MINOR EAR DEFECTS	28	—	28
MISCELLANEOUS *e.g.*, minor injuries, bruises, sores, chilblains, etc.	136	—	136
Total	203	—	203

Total Number of Attendances 2040

TABLE IV.—*continued.*

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

Defect or Disease.	Number of defects dealt with.			
	Under the Authority's Scheme.	Submitted to refraction by private practitioner or at hospital apart from the Authority's Scheme.	Otherwise.	Total.
1	2	3	4	5
Errors of Refraction, including Squint. Operations for squint should be recorded separately in the body of the Report.	72	—	—	72
Other Defect or Disease of the eyes, excluding those recorded in Group I.	—	—	—	—
Total	72	—	—	72

Total number of children for whom spectacles were prescribed :—
(*a*) Under the Authority's Scheme 65
(*b*) Otherwise ... ... —

Total number of children who obtained or received spectacles.—
(*a*) Under the Authority's Scheme 63
(*b*) Otherwise ... ... —

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

Number of Defects.															
Received Operative Treatment.													Received other forms of Treatment.	Total number treated.
Under the Authority's Scheme, in Clinic or Hospital.				By Private Practitioner or Hospital apart from the Authority's Scheme.				Total.						
1				2				3					4	5
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)			
0	0	44	0	0	0	6	0	0	0	50	0		—	50

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other Defects of the Nose and Throat.

TABLE IV.—*continued.*

GROUP IV.—ORTHOPÆDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme.			Otherwise.			TOTAL NUMBER TREATED.
	Residential treatment with education.	Residential treatment without education.	Non-residential treatment at an orthopædic clinic.	Residential treatment with education.	Residential treatment without education.	Non-residential treatment at an orthopædic clinic.	
Number of Children treated.	2	0	26	—	—	—	24

GROUP V.—DENTAL DEFECTS

(1) Number of Children who were:—
(*a*) Inspected by the Dentist:

Routine Age Group .....
4— 72
5—133
6—115
7—148
8—161
9—171
10—169
11—144
12—190
13—182
14— 6
Total 1491

Specials 3

Grand Total 1494

(2) (*b*) Found to require treatment 745

(3) (*c*) Actually treated 623

(4) Attendances made by children for treatment 1328

(5) Half-days devoted to—Inspection 13
Treatment 152
Total 165

(6) Fillings ... ... Permanent teeth 681
Temporary teeth 15
696

(7) Extractions ... ... Permanent teeth 197
Temporary teeth 790
987

(8) Administrations of general anæsthetics for extractions 28

(9) Other operations ... ... Permanent teeth 278
Temporary teeth 40
318

GROUP VI.—UNCLEANLINESS AND VERMINOUS CONDITIONS.

(i) Average number of visits per school made during the year by the School Nurses..... 3

(ii) Total number of examinations of children in the Schools by School Nurses..... 5394

(iii) Number of individual children found unclean..... 397.

(iv) Number of children cleansed under arrangements made by the Local Education Authority..... 0.

(v) Number of cases in which legal proceedings were taken:
(*a*) Under the Education Act, 1921 0
(*b*) Under School Attendance Bye-laws ... 0

STATEMENT OF THE NUMBER OF CHILDREN NOTIFIED DURING THE YEAR ENDED DECEMBER 31st, 1937, BY THE LOCAL EDUCATION AUTHORITY TO THE LOCAL MENTAL DEFICIENCY AUTHORITY.

Total number of Children notified - 0

ANALYSIS OF THE ABOVE TOTAL.

Diagnosis.	Boys.	Girls
1. (i) Children incapable of receiving benefit or further benefit from instruction in a Special School:		
(*a*) Idiots		
(*b*) Imbeciles		
(*c*) Others	Nil	Nil
(ii) Children unable to be instructed in a Special School without detriment to the interests of other children:		
(*a*) Moral defectives	Nil	Nil
(*b*) Others		
2. Feeble-minded children notified on leaving a Special School on or before attaining the age of 16	Nil	Nil
3. Feeble-minded children notified under Article 3 of the 1928 Regulations, *i.e.*, "special circumstances" cases...	Nil	Nil
4. Children who in addition to being mentally defective were blind or deaf	Nil	Nil
Grand Total...	Nil	Nil