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County Borough of Ipswich.

REPORT

of

THE MEDICAL OFFICER OF HEALTH

and

SCHOOL MEDICAL OFFICER

for the Year 1934.

COUNTY BOROUGH OF IPSWICH.

Annual Report

of the

Medical Officer of Health and School Medical Officer

for 1934

By A. M. N. PRINGLE,

M.B., C.M. Edin., D.P.H. Camb.,

Medical Officer of Health,

School Medical Officer, Superintendent Isolation Hospital,
Medical Officer to the Ipswich Port Sanitary Authority,
Fellow of the Royal Sanitary Institute,
Fellow of the Royal Society of Medicine,
etc.

IPSWICH:
EAST ANGLIAN DAILY TIMES CO. LTD.
1935.

County Borough of Ipswich.

PUBLIC HEALTH DEPARTMENT,
ELM STREET,
IPSWICH.

August, 1935.

LADIES AND GENTLEMEN,

I have the honour to present my Report on the Health of Ipswich for the year 1934.

I report especially upon the age distribution of the population, the epidemiology of Scarlet Fever and the comparative Mortalities of New Areas and Slum Districts.

I call attention to the widespread ramification of the activities of Local Authorities in the domain of the Public Health, and to the remarkable declines that have taken place in Infant Mortality, the death-rates from Tuberculosis and the seven principal Zymotic diseases, all conditions of Health subject to the particular attention of Local Authorities.

In the past the slogan of the Public Health Service has been the prevention of Disease, but I think there is a better, viz., the building up of Health. This means beginning before birth and going on till after death.

It focusses attention on the great work of the present moment which is Slum Clearance.

This problem has been attacked by the Local Authorities as a whole with enthusiasm, and the momentum of the attack is still gathering. If it goes on as it has begun, then indeed we may claim that we have well and truly laid the foundation upon which a race with an altogether different Health Standard can be reared.

In communities claiming to be Christian and civilised, the existence of slums is a bitter satire upon the genuineness of their Christianity and their claims to civilisation.

I have the honour to be, Ladies and Gentlemen,

Your obedient Servant,

A. M. N PRINGLE.

Medical Officer of Health.

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COUNTY BOROUGH OF IPSWICH.

Public Health Officers of the Authority.

December 31st, 1934.

MEDICAL (Whole Time).

Medical Officer of Health, School Medical Officer, Tuberculosis Officer and Superintendent, Ipswich Isolation Hospital.
A. M. N. PRINGLE, M.B., C.M. (Edin.), D.P.H. (Camb.).

Deputy Medical Officer of Health, etc., etc.
A. W. GAYE, B.A., M.B., B.CH., D.P.H. (Camb.), M.B., CH.B. (Manc.).

Assistant Medical Officer of Health, Resident Medical Officer, Ipswich Isolation Hospital, etc.
DORIS E. P. JOLLY, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.

Medical Superintendent, Ipswich Sanatorium.
W. F. SUTCLIFFE, M.R.C.S., L.R.C.P.

Assistant Medical Officer, Ipswich Sanatorium.
R. PHILPOTT, M.A., M.R.C.S., L.R.C.P.

Resident Medical Officer, Heathfields Municipal Hospital.
ANNIE C. EASTERBROOK, M.B., CH.B. (Edin.), D.P.H. (London).

Part Time.

Assistant School Medical Officer.
EDNA M. EDWARDS, M.R.C.S., L.R.C.P.

Medical Officer V.D. Clinic.
F. FOWLER WARD, B.A., M.B., B.CH.

Medical Officer Heathfields Municipal Hospital and St. John's Home.
J. GUTCH, M.A., M.D., B.CH., M.R.C.S., L.R.C.P.

District Medical Officer under Poor Law Acts.
W. F. FRYER, L.R.C.P., M.R.C.S.

Public Vaccinator.
H. W. FAREBROTHER, M.R.C.S., L.R.C.P., (London).

Consultants.

Orthopædics.
R. CHARLES, O.B.E., F.R.C.S.

Puerperal Fever.
J. GUTCH, M.A., M.D., B.CH., M.R.C.S., L.R.C.P.

DENTAL SURGEONS (Whole Time).

Education and Public Health.
T. A. EDMONDSON, L.D.S., R.C.S. (Eng.).
A. W. T. WARD, L.D.S., R.C.S. (Eng.)
R. CUTHILL, L.D.S. (U. Liverpool).

PUBLIC HEALTH OFFICERS OF THE AUTHORITY—continued.

OTHER OFFICERS (Whole Time).

Chief Sanitary Inspector.

H. L. BATY. 1, 2.

District Sanitary Inspectors.

G. ELLISON. 1, 2. R. F. WYNN. 1, 2. L. J. MASSAM. 1, 2.
E. E. MORGAN, 1. 2.
(Appointed 11/2/1935).

Health Visitors.

Miss F. PEPPER. 3, 4, 5. Miss M. SPRINGETT. 3, 4, 5.
,, F. M. CROSS. 3, 4, 5. Mrs. E. F. FENNA. 3, 4, 5.

School Nurses.

Miss M. SANDBACH. 3. Miss F. ILETT. 3.

Tuberculosis Nurse.

Miss E. JONES. 3.

Matron Isolation Hospital.

Miss E. LAW. 3.

Midwives, Maternity Home.

Miss F. WILLCOX. 3, 4. Miss G. KENNEY. 3, 4.
Miss B. A. HOGG, 4.

Chief Clerk.

H. J. WALTON. 1.

1.—Sanitary Inspectors Certificate R.S. Institute. 3.—Trained Nurse.
2.—Meat Inspectors Certificate. 4.—Certificate of C.M.B.
5.—Health Visitors Certificate R.S.I.

Part Time.

Public Analyst.

W. LINCOLNE SUTTON, F.I.C.

Veterinary Surgeon.

W. J. BROWNING, M.R.C.V.S.

Vaccination Officers.

Ipswich (Eastern) Sub-District, S. JAMES.
Ipswich (Western) Sub-District, H. J. WALTON.

Matron, Maternity Home.

Miss M. BLYTH, 3, 4.

GENERAL PROVISION OF HEALTH SERVICES FOR THE COUNTY BOROUGH OF IPSWICH.

HOSPITAL PROVISION.

1. Fever.

Ipswich Isolation Hospital, Foxhall Road, Ipswich—110 beds, including cubicle block of 24 beds for suspects or mixed infections—accommodation for all forms of Infectious Diseases.

2. Small Pox.

Ipswich Small Pox Hospital, Foxhall Heath, near Ipswich—24 beds.

3. Tuberculosis.

Ipswich Sanatorium, Foxhall, near Ipswich—120 beds, early cases.

Ipswich Isolation Hospital :—

Advanced Tuberculosis—30 beds.

Surgical Tuberculosis—24 beds.

East Suffolk and Ipswich Hospital (Voluntary Hospital)—beds as required for operative treatment.

4. Maternity.

Ipswich Maternity Home, Wingfield Street, Ipswich—15 bedrooms (18 beds) and 2 Labour Rooms.

5. Municipal Hospital.

Heathfields Municipal Hospital—311 beds.

AMBULANCE FACILITIES.

(a) Infectious Cases.

A Motor Ambulance has been provided by the Council and Motor Van for the removal of infected bedding.

(b) Non-Infectious and Accident Cases.

The Council have no Ambulances for use in these connections, but assists the local Branch of St. John Ambulance by an annual grant.

CLINICS AND TREATMENT CENTRES.

1. INFANT WELFARE CENTRES.

(a) PUBLIC HEALTH DEPARTMENT, ELM STREET.
Every afternoon (except Saturday), 2.30 p.m.—5.0 p.m.
Medical Officer in attendance Monday and Thursday.

(b) NACTON ESTATE (RED TRIANGLE HUT).

Every Tuesday afternoon, 2.30 p.m.—5 p.m.
Medical Officer in attendance, 2.30 p.m.—3.30 p.m.

2. ANTE-NATAL AND POST-NATAL CLINICS.

Every Wednesday and Friday afternoon, 2.30 p.m.—5 p.m.

3. ARTIFICIAL LIGHT CLINIC.

Every afternoon, except Wednesday and Saturday, at 2.30 p.m.

4. SCHOOL CLINIC.

Every morning. Special sessions in the afternoon.

5. TREATMENT CLINIC.

Open every morning. Every afternoon except Saturday.

6. DENTAL CLINIC.

Children attend by appointment.
Tuberculosis patients, expectant mothers and children under 5 years by special appointment.

7. TUBERCULOSIS DISPENSARY.

Adults every Tuesday and Friday at 10 a.m.
Children every Friday at 2.30 p.m.

8. TREATMENT CENTRE (VENEREAL DISEASES).

Clinics are held at the East Suffolk and Ipswich Hospital (Voluntary Hospital) as under :—

Adults—Males, Wednesday at 5.30 p.m., Friday at 1 p.m.
Females, Wednesday at 4.0 p.m., Friday at 2.30 p.m.

Children, Thursday at 11 a.m.

All the above Clinics are held at the Public Health Department, Elm Street, Ipswich, except where stated otherwise.

STATISTICS AND SOCIAL CONDITIONS.

Land Area of the Borough in acres	8,692
Population, Census 1921	79,371
Population, Census 1931	87,557
No. of Inhabited Houses (1931)	21,923
No. of Inhabited Houses (at 31/3/1934) according to Rate Books	24,294
No. of Families or Separate Occupiers (1931)	22,758
Rateable Value, March, 1934	£546,757
Sum represented by a Penny Rate, 1934	£2,080

EXTRACTS FROM VITAL STATISTICS OF THE YEAR 1934.

	Total.	M.	F.	Birth-Rate.
BIRTHS—Legitimate ...	1,231	632	599	14.3
,, Illegitimate ...	60	25	35	
				Rate per 1,000 Total Births.
STILLBIRTHS	58	28	30	43
				Death Rate.
DEATHS	983	478	505	10.90

Percentage of Total Deaths occurring in Public Institutions ... 36%

Number of women dying in, or in consequence of, child-birth ...	From Sepsis ...	4
	From other causes ...	4

Death-rate of Infants under 1 year of age per 1,000 live Births :—
Legitimate 46, Illegitimate 50 ... ... Total 46

Deaths from Measles (all ages)	Nil
Deaths from Whooping Cough (all ages)	7
Deaths from Diarrhœa (under 2 years of age)	4

POPULATION.

The following Table shows the changes that have taken place in the numbers of the population of Ipswich since the first census in 1801 :—

Year.	Census Populations.			Population Increases					Females per 1,000 Males.
	Males.	Females.	Persons.	Total Increases.	Per cent. Proportions.	Natural Increases.	Migrations.		
							Inward.	Outward.	
1801	4,984	6,293	11,277	—	—	—	—	—	1,262
1811	6,064	7,606	13,670	2,393	21.2	—	—	—	1,254
1821	7,831	9,355	17,186	3,516	25.6	—	—	—	1,194
1831	9,169	11,032	20,201	3,015	17.5	—	—	—	1,203
1841	11,894	13,490	25,384	5,185	25.6	—	—	—	1,134
1851	15,474	17,440	32,914	7,530	29.6	2,822	4,708	—	1,127
1861	17,667	20,283	37,950	5,036	15.3	4,075	961	—	1,148
1871	20,047	22,900	42,947	4,997	13.1	4,373	624	—	1,143
1881	23,608	26,712	50,320	7,373	17.1	5,290	2,083	—	1,131
1891	26,658	30,712	57,360	7,040	13.9	7,033	7	—	1,151
1901	31,181	35,449	66,630	9,270	16.1	6,610	2,660	—	1,136
1911	34,980	38,952	73,932	7,302	10.9	8,232	—	930	1,113
1921	37,359	42,012	79,371	5,439	7.4	5,979	—	540	1,124
1931	41,285	46,217	87,502	8,131	10.2	5,616	2,515	—	1,119
1931	41,412	46,358	87,770*	—	—	—	—	—	—
1932	41,850	46,850	88,700*	—	—	—	—	—	—
1933	42,025	47,045	89,070*	—	—	—	—	—	—
1934	42,538	47,619	90,157*	—	—	—	—	—	—

The Registrar-General estimates that the population at the middle of 1934 was 90,157.

The sex distribution of this estimated population is based on the assumption that the sexes are distributed in exactly the same proportions as at the Census of 1931.

Reference has been made from time to time in these Reports to the changes that have taken place in the age distribution of the population, facts which have emerged into prominence since the beginning of the 20th Century.

In order to illustrate this point I give a Table showing (for persons) the age composition at 18 age periods of each 1,000 of the population as enumerated at each Census since 1841 :—

Age Periods	1841	1851	1861	1871	1881	1891	1901	1911	1921	1931
— 5	116	130	130	130	127	119	111	105	86	78
—10	110	106	114	112	117	117	106	103	92	82
—15	104	96	107	108	108	110	106	97	96	80
—20	103	100	97	97	101	105	105	94	90	85
—25	110	100	87	90	88	88	92	82	81	84
—30	85	89	76	74	77	76	82	82	75	81
—35	74	76	68	62	66	68	74	77	73	74
—40	55	63	64	57	57	60	63	71	73	68
—45	55	53	60	56	50	53	56	62	68	66
—50	40	42	47	49	46	44	48	52	64	63
—55	43	39	40	46	43	39	42	45	53	59
—60	24	27	27	34	33	33	32	37	43	52
—65	29	29	28	27	32	29	26	30	35	43
—70	18	18	21	21	22	22	22	25	28	33
—75	14	14	15	17	14	17	16	16	19	23
—80	7	8	9	9	8	9	9	11	12	14
—85	3	4	4	4	4	4	5	5	6	7
+85	2	2	2	2	2	1	2	2	2	3
0—15	330	332	351	350	352	346	323	305	274	240
15—25	213	200	184	187	189	193	197	176	171	169
25—35	159	165	144	136	143	144	156	159	148	155
35—70	264	271	287	290	283	280	289	322	364	384
+70	26	28	30	32	28	31	32	34	39	47

The facts contained in this Table will be better realised if the age periods are dealt with in blocks rather than as individual units. The blocks selected are from 0-15 years, 15-25, 25-35, and 35 years and over.

Examination shows that the proportion of the population under 15 years remained with extraordinary constancy at between 33 and 35 per cent. of the total from 1841-1891 inclusive.

In 1901 the proportion declined to 32 per cent., and at each subsequent Census continuous declines have been recorded at this age period. At the Census of 1931 the proportion had fallen to 24 per cent.

The cause of the decline is the fall in the number of Births, and in consequence the period most affected is that under 5 years of age.

At 15-25 years of age there is also a decline, but this does not appear until the Census of 1911. In this particular group the sequence of events is not continuous. The highest proportion in the series was recorded in 1841, which was followed by a considerable drop in 1861. Thereafter the proportion gradually increased to 1901, after which

the present decline appeared. This also is due to the diminished number of births.

At the present moment 17 per cent. of the population is at this age as compared with 21 per cent. in 1841 and very nearly 20 per cent. in 1901.

The age period 25-35 shows the least variation of any; in fact, from 30-35 years of age the proportion of the population was exactly the same in 1931 as it was in 1841, viz., 7½ per cent.

The broad general fact is thus proved that at the present day the proportion of persons living under 30 years of age is decreasing, the decrease being greatest at the youngest ages.

At ages over 35 years of age the proportion of inhabitants remained at between 31 per cent. and 32 per cent. of the total population at the Censuses from 1861-1901 inclusive. Since 1901 the proportion has steadily increased until at the Census of 1931, 43 per cent. of the population stood in this group.

Thus three phases are established at the present time in the age distribution of the population :—

1. A declining population under 30 years of age.
2. A stationary population at 30-35 years of age.
3. An increasing population at all ages over 35.

Thus, the change in the age distribution of the population showed itself to a comparatively slight degree, first of all at the Census of 1891. Here it was visible only under 5 years of age, and the variation was within the limits of previous experience (1841).

The Census of 1901 was the first to show real evidence, but in this case the evidence was found under 10 years of age chiefly. At the Census of 1911 the tendency downwards extended its scope amongst the young, whereas at ages over 35 there became quite evident a swing in the opposite direction, the proportion of older people rising from 32 per cent. to 35½ per cent.

At each subsequent Census enumeration these tendencies have been extended and emphasised.

The age distribution of the population has a predominant influence on the death-rate. Thus :—

1. A diminishing number of young people with a low death-rate (vide page 22).
2. An increasing number of ageing people with a high death-rate (vide page 22).

The ultimate effect of these inter-related phenomena is that the declines in the death-rates at all ages recorded hitherto will cease to appear, and it is probable that the death-rate at all ages will increase.

This should be a normal increase in strict accordance with the age distribution of the population.

Abnormality will only appear if the expected low death-rates amongst the young are not realised.

At the present moment we are still recording declining mortalities at all ages except the very highest, and it may be claimed that finality has not yet been achieved or anything like it, but it should be recognised that the final result of an ageing population is a death-rate in correspondence therewith.

INCREASE IN THE AREA OF THE BOROUGH.

On April 1st, 1934, the acreage of the Borough was increased by 635 acres, the number of houses by 69 and the population by 155 persons, in consequence of the coming into effect of the East Suffolk Review Order, 1934.

This is the first variation in the acreage of the Borough since the charter granted to the town by King John in 1199.

HOUSING.

A Table is appended which indicates the number of houses built in Ipswich since 1921.

The figures for this Table have been kindly supplied by the Borough Surveyor.

It will be seen that 1934 was remarkable for the record number of houses built by private enterprise. It is interesting to compare this figure (832) with the figure for 1912 (244) and it is also notable that the number of houses built last year by private enterprise was equal to the total erected privately during the 10 years 1912 to 1921 (833).

HOUSES ERECTED IN IPSWICH SINCE 1921.

Year.	By Private Enterprise	By the Local Authority under various schemes.	Total.
1921	27	227	254
1922	24	136	160
1923	110	52	162
1924	309	48	357
1925	495	116	611
1926	496	166	662
1927	433	341	774
1928	381	252	633
1929	490	239	729
1930	307	272	579
Average	307	185	492
1931	289	116	405
1932	397	164	561
1933	635	50	685
1934	832	132	964

MARRIAGES.

798 marriages were registered in Ipswich in 1934, as compared with 713 in the previous year.

The facts with regard to the Marriage Rates in Ipswich are set forth as follows :—

Periods.	No. of Marriages.	Marriage rates per 1000 living.	
		Ipswich.	England & Wales.
1841—1850	2,815	**19.43**	16.1
1851—1860	3,302	**18.70**	16.9
1861—1870	3,550	**17.64**	16.6
1871—1880	4,143	**17.77**	16.2
1881—1890	4,152	**15.37**	14.9
1891—1900	4,777	**15.43**	15.6
1901—1910	5,209	**14.86**	15.5
1911—1920	6,819	**17.83**	16.6
1921—1930	6,740	**16.20**	15.5
1841—1845	1,239	**18.29**	15.7
1846—1850	1,576	**20.42**	16.5
1851—1855	1,689	**19.84**	17.1
1856—1860	1,613	**17.65**	16.7
1861—1865	1,790	**18.35**	16.8
1866—1870	1,760	**16.96**	16.4
1871—1875	2,072	**18.56**	17.1
1876—1880	2,071	**17.04**	15.3
1881—1885	2,170	**16.59**	15.2
1886—1890	1,982	**14.22**	14.7
1891—1895	2,326	**15.60**	15.1
1896—1900	2,451	**15.28**	16.1
1901—1905	2,560	**14.99**	15.6
1906—1910	2,649	**14.73**	15.3
1911—1915	3,201	**16.94**	16.4
1916—1920	3,618	**18.70**	16.8
1921—1925	3,316	**16.34**	15.7
1926—1930	3,424	**16.06**	15.4
1921	701	**17.63**	16.9
1922	635	**15.80**	15.7
1923	662	**16.31**	15.2
1924	600	**14.68**	15.3
1925	718	**17.34**	15.2
1926	654	**15.64**	14.3
1927	675	**15.98**	15.7
1928	680	**15.95**	15.4
1929	714	**16.59**	15.8
1930	701	**16.13**	15.8
1931	679	**15.48**	15.6
1932	694	**15.72**	15.2
1933	713	**16.00**	15.7
1934	798	**17.70**	—

The number of marriages registered in 1934 was the highest since 1841, with the exceptions of 1919 (898) and 1915 (856).

The rate was above any recorded since 1876, with the exception of the war period, but below the average of the period of 40 years from 1841-1880.

The highest Marriage Rate recorded in Ipswich was 23.1 in 1919 and the lowest 13.0 in 1887.

BIRTHS.

1,291 Births were registered in Ipswich in 1934, as compared with 1,274 in the previous year.

The facts as to the number of Births registered and the Birth-rates are set forth as follows :—

Periods.	Number.			Rates per 1,000 living.	
	Males.	Females.	Persons.	**Ipswich.**	England and Wales.
1841—1850	4,783	4,608	9,391	**32.4**	32.6
1851—1860	6,088	5,837	11,925	**33.7**	34.1
1861—1870	6,805	6,488	13,293	**33.0**	35.2
1871—1880	8,005	7,606	15,611	**33.4**	35.4
1881—1890	8,619	8,485	17,104	**31.6**	32.4
1891—1900	9,058	8,729	17,787	**28.7**	29.9
1901—1910	9,586	9,212	18,798	**26.8**	27.2
1911—1920	8,436	8,102	16,538	**21.6**	21.8
1921—1930	7,602	7,396	14,998	**18.0**	18.3
1841—1845	2,036	2,056	4,092	**30.2**	32.3
1846—1850	2,747	2,552	5,299	**34.3**	32.8
1851—1855	2,914	2,864	5,778	**33.9**	33.9
1856—1860	3,174	2,973	6,147	**33.6**	34.4
1861—1865	3,308	3,144	6,452	**33.0**	35.1
1866—1870	3,497	3,344	6,841	**32.9**	35.3
1871—1875	3,820	3,646	7,466	**33.4**	35.5
1876—1880	4,185	3,960	8,145	**33.5**	35.3
1881—1885	4,258	4,230	8,488	**32.4**	33.5
1886—1890	4,361	4,255	8,616	**30.9**	31.4
1891—1895	4,444	4,339	8,783	**29.4**	30.5
1896—1900	4,614	4,390	9,004	**28.0**	29.3
1901—1905	4,899	4,719	9,618	**28.1**	28.2
1906—1910	4,687	4,493	9,180	**25.5**	26.3
1911—1915	4,481	4,271	8,752	**23.1**	23.6
1916—1920	3,955	3,831	7,786	**20.1**	20.1
1921—1925	3,829	3,883	7,712	**19.0**	19.9
1926—1930	3,773	3,513	7,286	**17.1**	16.7
1921	844	880	1,724	**21.7**	22.4
1922	773	813	1,586	**19.7**	20.6
1923	782	766	1,548	**19.1**	19.7
1924	735	698	1,433	**17.5**	18.8
1925	695	726	1,421	**17.1**	18.3
1926	777	763	1,540	**18.4**	17.8
1927	729	687	1,416	**16.8**	16.7
1928	768	656	1,424	**16.7**	16.7
1929	725	713	1,438	**16.7**	16.3
1930	774	694	1,468	**16.9**	16.3
1931	702	669	1,371	**15.6**	15.8
1932	671	692	1,363	**15.4**	15.3
1933	660	614	1,274	**14.3**	14.4
1934	657	634	1,291	**14.3**	14.8

The Births registered in 1934 were the fewest since 1864, with the exception of 1933.

The Birth-rate in 1934 was fractionally higher than that of 1933, which was the lowest since 1841.

The highest rate in our series was 36.4, recorded in 1850.

I have nothing to add to or retract from the opinions already expressed as to the causes of the decline in the Birth-rate.

Attention is once again directed to the extremely important fact that the Birth-rates are now closer to the Death-rates than at any known period. The significance of this fact in relation to population density is obvious.

ANNUAL NUMBER, SEX AND LEGITIMACY OF THE BIRTHS.

The experience since 1921 is shown in the following Table :—

Year.	Legitimate.			Illegitimate.			All Births.			Males per 1,000 Females.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	
1921	808	831	1,639	36	49	85	844	880	1,724	959
1922	731	777	1,508	42	36	78	773	813	1,586	958
1923	754	733	1,487	28	33	61	782	766	1,548	1,021
1924	700	669	1,369	35	29	64	735	698	1,433	1,053
1925	661	695	1,356	34	31	65	695	726	1,421	957
1926	748	735	1,483	29	28	57	777	763	1,540	1,018
1927	689	665	1,354	40	22	62	729	687	1,416	1,061
1928	736	625	1,361	32	31	63	768	656	1,424	1,170
1929	694	678	1,372	31	35	66	725	713	1,438	1,017
1930	742	669	1,411	32	25	57	774	694	1,468	1,115
1921-1930	7,263	7,077	14,340	339	319	658	7,602	7,396	14,998	1,028
1931	668	635	1,303	34	34	68	702	669	1,371	1,049
1932	641	656	1,297	30	36	66	671	692	1,363	969
1933	625	581	1,206	35	33	68	660	614	1,274	1,075
1934	632	599	1,231	25	35	60	657	634	1,291	1,036

The figures for 1933 and 1934 are very similar, and, apart from numbers, have no special significance.

TWIN BIRTHS.

18 Twin Pregnancies occurred in 1934, resulting in the birth of 28 living children and 8 stillbirths.

6 of the pregnancies resulted in Male Twins, 4 in Female Twins, and 8 in Mixed Twins.

The proportion of stillbirths was 28.5 per cent., a very high figure indeed, the highest in fact since 1921.

The local twin records show that in the years 1921-1934 inclusive, there have been 248 Twin Pregnancies, giving an annual average of just under 18.

These pregnancies have resulted in the birth of 440 living children and 56 dead. This gives a proportion of 88.71 per cent. of living children and 11.29 per cent. dead in terms of potential lives.

In the period 1921-1934 there have been 43 Twin Pregnancies associated with stillbirth. This gives a proportion of 17.3 per cent. of these pregnancies as attended with stillbirth, which is far in excess of the experience of single births.

DEATHS AND DEATH-RATES FROM ALL CAUSES AT ALL AGES.

I give a Table showing the crude Death-rates recorded for Ipswich as contrasted with those of England and Wales since 1841 :—

Periods.	No. of Deaths (Ipswich).			Crude Death-rates per 1000 living.					
				Males.		Females.		Persons.	
	M.	F.	P.	Ipswich	E. & W.	Ipswich	E. & W	Ipswich	E. & W.
1841—1850	3,245	3,324	6,569	**23.86**	23.1	**21.62**	21.6	**22.67**	22.4
1851—1860	3,863	3,987	7,850	**23.39**	23.1	**21.22**	21.4	**22.24**	22.2
1861—1870	4,440	4,480	8,920	**23.66**	23.7	**20.84**	21.4	**22.16**	22.5
1871—1880	5,273	5,044	10,317	**24.15**	22.7	**20.34**	20.1	**22.12**	21.4
1881—1890	5,053	5,016	10,069	**20.02**	20.3	**17.43**	18.1	**18.64**	19.1
1891—1900	5,649	5,529	11,178	**19.56**	19.3	**16.74**	17.1	**18.06**	18.2
1901—1910	5,335	5,231	10,566	**16.17**	16.4	**14.09**	14.4	**15.07**	15.4
1911—1920	5,270	5,283	10,553	**14.56**	15.9	**13.10**	13.0	**13.19**	14.3
1921—1930	4,604	4,778	9,382	**11.76**	12.9	**10.88**	11.4	**11.29**	12.1
1841—1845	1,402	1,417	2,819	**2 2.07**	22.1	**19.70**	20.6	**20.81**	21.4
1846—1850	1,843	1,907	3,750	**25.43**	24.1	**23.43**	22.6	**24.30**	23.3
1851—1855	1,989	1,971	3,960	**24.90**	23.5	**21.80**	21.8	**23.26**	22.7
1856—1860	1,874	2,016	3,890	**21.97**	22.6	**20.69**	21.0	**21.29**	21.8
1861—1865	2,235	2,314	4,549	**24.59**	23.7	**22.21**	21.5	**23.32**	22.6
1866—1870	2,205	2,166	4,371	**22.79**	23.7	**19.56**	21.2	**21.07**	22.4
1871—1875	2,586	2,440	5,026	**24.78**	23.3	**20.52**	20.7	**22.51**	22.0
1876—1880	2,687	2,604	5,291	**23.58**	22.1	**20.16**	19.5	**21.76**	20.8
1881—1885	2,496	2,505	5,001	**20.37**	20.5	**18.01**	18.3	**19.12**	19.4
1886—1890	2,557	2,511	5,068	**19.69**	20.0	**16.88**	17.8	**18.19**	18.9
1891—1895	2,841	2,760	5,601	**20.46**	19.8	**17.32**	17.7	**18.78**	18.7
1896—1900	2,808	2,769	5,577	**18.73**	18.8	**16.20**	16.6	**17.38**	17.7
1901—1905	2,692	2,636	5,328	**16.80**	17.1	**14.55**	15.0	**15.60**	16.0
1906—1910	2,643	2,595	5,238	**15.57**	15.6	**13.66**	13.8	**14.56**	14.7
1911—1915	2,765	2,597	5,362	**15.43**	15.4	**13.06**	13.2	**14.19**	14.3
1916—1920	2,505	2,686	5,191	**13.71**	16.5	**13.14**	12.8	**13.41**	14.4
1921—1925	2,200	2,330	4,530	**11.53**	13.0	**10.87**	11.4	**11.18**	12.2
1926—1930	2,404	2,448	4,852	**11.98**	12.9	**10.89**	11.4	**11.40**	12.1
1911	462	483	945	**13.17**	15.6	**12.37**	13.7	**12.75**	14.6
1912	582	555	1,137	**16.40**	14.2	**14.08**	12.6	**15.18**	13.4
1913	567	488	1,055	**15.80**	14.8	**12.27**	12.9	**13.94**	13.8
1914	546	518	1,064	**15.05**	14.9	**12.90**	13.1	**13.92**	14.0
1915	608	553	1,161	**16.70**	17.7	**13.70**	14.0	**15.12**	15.7
1916	506	521	1,027	**13.90**	16.6	**12.87**	12.5	**13.36**	14.3
1917	521	533	1,054	**14.32**	17.1	**13.12**	12.1	**13.69**	14.2
1918	540	606	1,146	**14.84**	20.1	**14.88**	15.2	**14.86**	17.3
1919	488	527	1,015	**13.36**	15.7	**12.85**	12.6	**13.09**	14.0
1920	450	499	949	**12.17**	13.5	**12.01**	11.5	**12.09**	12.4
1921	432	459	891	**11.56**	13.0	**10.92**	11.3	**11.22**	12.1
1922	448	526	974	**11.86**	13.6	**12.39**	12.0	**12.14**	12.8
1923	411	427	838	**10.77**	12.4	**9.96**	10.9	**10.34**	11.6
1924	398	403	801	**10.32**	12.9	**9.31**	11.5	**9.79**	12.2
1925	511	515	1,026	**13.12**	12.9	**11.78**	11.4	**12.41**	12.2
1926	440	429	869	**11.18**	12.4	**9.72**	10.9	**10.41**	11.6
1927	516	544	1,060	**12.99**	13.1	**12.21**	11.6	**12.58**	12.3
1928	481	479	960	**11.99**	12.5	**10.65**	10.9	**11.28**	11.7
1929	505	545	1,050	**12.46**	14.2	**12.01**	12.7	**12.22**	13.4
1930	462	451	913	**11.29**	12.3	**9.84**	10.7	**10.53**	11.4
1931	487	542	1,029	**11.76**	13.0	**11.71**	11.6	**11.73**	12.3
1932	495	573	1,068	**11.88**	12.7	**12.33**	11.4	**12.12**	12.0
1933	487	532	1,019	**11.58**	12.9	**11.30**	11.7	**11.44**	12.3
1934	478	505	983	**11.23**	—	**10.60**	—	**10.90**	11.8

The death-rate recorded in 1934 was one of the lowest in the 94 years of our local Records. In fact, it has only been surpassed on four occasions, viz., 9.79 in 1924, 10.34 in 1923, 10.41 in 1926, and 10.53 in 1930.

On the other hand the highest death-rates in the series were 27.68 in 1863, 26.95 in 1846, 26.76 in 1849, and 25.92 in 1854.

This Table has been examined repeatedly in these Reports and various considerations have been advanced from time to time. On this occasion I will limit comment to one feature only.

On the face of it the average death-rates shown in the Table are all strictly comparable and in some sense this is true, but there is one factor with a predominating influence upon the death-rate which does not show itself to people not accustomed to look for the pitfalls that are ever ready to trap the unwary examiner of vital statistics. This is the age and sex distribution of the populations upon which the death-rates at all ages are based. The age and sex distribution of the population is discussed in another part of this Report.

From the particular point of view under consideration at the moment it may be stated that the death-rates at all ages of the population in 1931 could not be the same as that of the population of, say, 1891, simply from age distribution alone.

This vital point renders necessary a Table showing the average age distribution of the death-rates at 18 age periods in terms of decennia since 1841 (persons only).

The sex distribution is not given as its inclusion makes the Table too cumbersome.

Decennial age distribution of the deaths of Persons per million living.

Ages.	1841--1850.	1851—1860.	1861—1870.	1871—1880.	1881—1890.	1891—1900.	1901—1910.	1911—1920.	1921—1930.	1931—1934.
— 5	73,231	69,264	67,157	63,013	55,963	55,317	44,006	31,811	17,207	12,859
— 10	9,210	6,503	7,666	5,839	4,389	4,589	3,618	3,784	2,150	2,467
— 15	5,115	3,779	4,877	3,501	3,087	2,481	1,925	2,438	1,314	1,429
— 20	7,371	6,808	6,255	5,396	4,139	4,105	2,585	2,954	1,977	1,850
— 25	8,728	8,590	8,467	6,821	5,623	4,708	3,920	4,237	2,913	2,602
— 30	11,080	9,408	8,919	9,821	6,466	6,080	4,012	4,768	3,034	3,007
— 35	10,401	11,350	9,703	10,759	7,905	6,833	5,644	5,231	3,597	2,966
— 40	13,553	12,003	12,679	13,672	9,636	9,823	6,968	6,277	4,159	3,221
— 45	14,221	12,571	12,879	13,840	11,844	10,756	8,906	7,761	5,931	4,630
— 50	15,204	16,423	16,907	17,648	13,298	13,916	12,076	9,786	7,850	6,546
— 55	15,822	17,941	18,117	20,263	15,885	17.340	13,733	13,090	10,724	10,224
— 60	26,405	25,809	25,083	28,208	24,209	23,510	20,971	18,812	14,403	14,488
— 65	32,215	34,516	33,177	35,147	31,839	31,718	28,301	26,058	21,854	21,248
— 70	46,594	54,208	51,754	54,651	54,993	53,553	39,489	43,228	35,340	39,202
— 75	81,429	67,324	59,694	75,653	74,595	73,151	73,039	64,074	59,050	57,712
— 80	115,122	116,137	122,225	136,449	114,770	126,582	110,158	102,907	93,126	105,592
— 85	177,121	169,137	170,212	174,450	168,780	174,921	158,938	157,321	148,959	159,516
+ 85	290,209	324,030	283,783	333,333	309,426	263,544	245,378	249,051	264,063	258,802
All Ages	22,676	22,241	22,162	22,127	18,642	18,061	15,074	13,799	11,299	11,521

Thus it appears that the broad generalisation that the death-rates under 65 years of age continue to decline can still be made with truth. This is specially evident in the mortality experience under 5 years of age.

At the other ages, with the exception of the age periods from 5-15 years of age, in which small increases are recorded, the declines continue but not at the same rate. The process, in fact, is slowing down, as would be expected, but the essential fact is its continuation. At ages over 70 years the average death-rate for the last four years has been 100,167, or a rather higher rate than the average of the 15 years from 1916-1930. It could not be expected that there should be continuous declines at these high ages. The generalisation holds good, however, that the increasing death-rate at all ages, to which reference has already been made in these Reports, is directly due to the large increase in the number of elderly people with a normal death-rate so high as to more than swamp the advantages derived from the low and still diminishing death-rates amongst the young and middle-aged.

This normal process must be regarded as a permanent phase.

This aspect of the case is emphasised in the following Table :—

Periods.	25%	50%	75%
1841—1850	−1	−20	−57
1851—1860	−1	−22	−59
1861—1870	−1.2	−24	−61
1871—1880	−1.2	−30	−63
1881—1890	−1.3	−32	−65
1891—1900	−1	−35	−69
1901—1910	−1.5	−43	−70
1911—1920	−11.3	−54	−72
1921—1930	−38.5	−64	−76
1931—1934	−47.5	−66	−77

The Table shows that from 1841-1910 the deaths under 1 year of age or just over were sufficiently numerous to provide 25 per cent. of the deaths at all ages.

The change that has taken place since 1910 is extraordinary, and it is evident that the process is not at an end.

It is now necessary to add together all the deaths of persons up to 47 years of age to produce the proportion formerly provided by the deaths under 1 year alone.

The other proportions in the Table bear out this point of view.

QUARTERLY DEATH-RATES.

Decennial Periods.	March.		June.		September.		December.	
	Death-rates.		Death-rates.		Death-rates.		Death-rates.	
	Ipswich	England & Wales.	Ipswich	England & Wales.	Ipswich	England & Wales.	Ipswich	England & Wales.
1841—1850	**24.05**	24.7	**21.12**	22.0	**23.09**	21.0	**22.44**	21.7
1851—1860	**23.61**	24.7	**20.56**	22.1	**22.34**	20.3	**22.45**	21.9
1861—1870	**23.84**	25.2	**20.38**	21.8	**22.18**	21.0	**22.26**	22.1
1871—1880	**24.05**	23.7	**20.81**	20.9	**21.60**	19.6	**22.07**	21.3
1881—1890	**20.92**	21.6	**17.15**	18.7	**17.18**	17.3	**19.29**	19.1
1891—1900	**20.69**	20.7	**15.99**	17.6	**18.17**	17.0	**17.41**	17.7
1901—1910	**17.84**	17.7	**13.89**	14.6	**13.53**	13.8	**15.15**	15.4
1911—1920	**17.15**	17.2	**12.84**	13.6	**11.32**	11.8	**13.93**	15.0
1921—1930	**14.83**	15.5	**10.42**	11.7	**8.82**	9.5	**11.12**	11.8
1931	**16.10**	16.5	**10.93**	11.5	**9.41**	9.6	**10.54**	11.7
1932	**17.10**	15.4	**10.23**	11.6	**9.45**	9.7	**11.56**	11.5
1933	**13.52**	17.1	**10.76**	10.8	**9.75**	9.4	**11.75**	12.0
1934	**13.13**	—	**10.88**	—	**9.31**	—	**10.84**	—

The mortality was, as usual, highest in the March Quarter and lowest in the September. This is the normal experience of present-day statistics.

The mortality-rate for the March Quarter of 1934 was the lowest ever recorded. It was associated with a low Respiratory mortality-rate and a comparative absence of fatal Influenza.

MONTHLY DEATH-RATES.

Month	1841—1880	1881—1900.	1901—1910.	1911—1920.	1921—1930.	1931.	1932.	1933.	1934.
January	24.02	21.52	18.64	15.81	15.60	12.46	14.80	13.22	12.27
February	24.21	20.37	18.19	19.22	15.23	16.87	18.69	17.41	12.58
March	23.40	21.49	16.74	16.61	13.70	18.89	17.87	10.31	14.49
April	21.88	18.36	14.95	14.34	11.70	12.14	9.79	10.79	11.74
May	20.95	16.33	14.16	12.86	9.98	8.97	9.60	10.57	10.18
June	19.25	14.89	12.29	11.32	9.61	11.73	11.31	10.92	10.39
July	18.00	15.15	11.96	10.57	9.03	9.51	10.40	8.19	9.66
August	23.11	19.08	14.01	11.43	8.80	8.73	9.87	10.18	9.79
September	25.66	18.95	14.64	12.01	8.61	9.93	8.00	10.92	7.82
October	21.59	17.12	13.66	12.13	10.06	10.05	10.93	9.12	7.31
November	21.17	17.37	15.28	16.08	10.84	10.06	9.79	10.92	12.68
December	24.05	20.45	16.50	13.65	12.48	10.85	13.87	15.20	11.88
Whole Year	22.27	18.33	15.00	13.80	11.27	11.73	12.12	11.44	10.90

The highest was experienced in March and the lowest in October. There is nothing unusual in the first case, but it is quite unusual to find the month of October with the lowest mortality for the year.

The months of January and February exhibited mortality rates much below the average, especially February.

PRINCIPAL CAUSES OF DEATH AT ALL AGES, 1934.

Causes of Death.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
Heart Diseases	94	2.20	107	2.24	201	2.22
Cancer	62	1.45	89	1.86	151	1.67
Tuberculosis (all forms)	34	.79	41	.86	75	.83
Bronchitis	32	.75	34	.71	66	.73
Cerebral Hæmorrhage Thrombosis, Hemiplegia.	29	.68	37	.77	66	.73
Pneumonia	27	.63	20	.42	47	.52
Violence	27	.63	14	.29	41	.45
Arterio Sclerosis	20	.42	17	.35	37	.41
Bright's Disease	18	.42	14	.29	32	.35
Atrophy, Prematurity etc.	13	.30	17	.35	30	.33
Senility	6	.14	12	.25	18	.19
All Others	116	2.72	103	2.16	219	2.42
Total	478	11.23	505	10.60	982	10.90

There is little change in this Table from the average experience of recent years. Heart Disease and Cancer stand at the head of the list, far ahead of any other group of conditions.

Tuberculosis and Bronchitis changed places as compared with the previous year.

The death-rates from the various groups were below the experience of the previous year with the exceptions of Tuberculosis, Cerebral Hæmorrhage, etc., and Bright's Disease.

PRINCIPAL CAUSES OF DEATH OVER 70 YEARS OF AGE, 1934.

These are set forth in the following Table :—

Causes of Death.	Males.	Females.	Persons.	Death Rates.
Diseases of the Heart ...	56	71	127	28.92
Cancer	21	35	56	12.75
Bronchitis	27	27	54	12.30
Cerebral Hæmorrhage, Thrombosis, Hemiplegia	14	25	39	8.88
Arterio Sclerosis ...	15	11	26	5.92
Senility	6	12	18	4.10
Pneumonia	7	6	13	2.96
Diseases of the Prostate ...	13	—	13	2.96
Bright's Disease ...	5	7	12	2.73
All others	22	33	55	12.52
Total	186	227	413	94.07
Death-rates over 70 years of age	111.59	92.69	100.16	

This Table, in its main features, corresponds very closely with the average experience.

The general character of these conditions is that people of advanced age die from the effects of degenerations, rather than from acute Diseases.

Thus the diseases of the heart included in this series are composed almost entirely of the Muscular Degenerations associated with advancing years. Cerebral Hæmorrhage and Arterio Sclerosis are conditions, or groups of conditions, due to degenerative changes in the arterial system, which do not occur in young people, but increase in frequency as age advances beyond middle life.

The Bronchitis of the aged is another condition closely connected with Heart and Arterial degenerations.

The death-rate at these ages in 1934 was above the average of recent years.

The deaths over 70 years of age provided 42 per cent. of the mortality at all ages. This proportion is slowly increasing : it is now double what it was at the end of the last century.

MORTALITY FROM THE SEVEN PRINCIPAL ZYMOTIC DISEASES.

The group includes Enteric Fever, Smallpox, Scarlet Fever, Diphtheria, Measles, Whooping Cough and Diarrhœa under 2 years of age.

Periods	Males		Females		Persons	
	Nos.	Rates	Nos.	Rates	Nos.	Rates
1841—1850	401	2.94	383	2.49	784	2.70
1851—1860	438	2.65	471	2.50	909	2.57
1861—1870	523	2.78	539	2.50	1062	2.63
1871—1880	737	3.37	688	2.77	1425	3.05
1881—1890	514	2.03	528	1.83	1042	1.92
1891—1900	740	2.56	685	2.07	1425	2.30
1901—1910	486	1.47	443	1.19	929	1.32
1911—1920	347	.95	291	.72	638	.83
1921—1930	130	.33	120	.27	250	.30
1841—1845	121	1.90	103	1.43	222	1.65
1846—1850	280	3.86	280	3.42	562	3.63
1851—1855	229	2.86	249	2.75	478	2.80
1856—1860	209	2.45	222	2.27	431	2.36
1861—1865	309	3.40	340	3.26	649	3.32
1866—1870	214	2.21	199	1.79	413	1.99
1871—1875	389	3.72	339	2.85	728	3.26
1876—1880	348	3.05	349	2.70	697	2.86
1881—1885	215	1.75	253	1.81	468	1.78
1886—1890	299	2.30	275	1.84	574	2.06
1891—1895	321	2.31	304	1.90	625	2.09
1896—1900	419	2.79	381	2.22	800	2.49
1901—1905	280	1.74	244	1.34	524	1.53
1906—1910	206	1.21	199	1.04	405	1.12
1911—1915	230	1.28	193	.97	423	1.11
1916—1920	117	.64	98	.47	215	.55
1921—1925	65	.34	71	.33	136	.33
1926—1930	65	.32	49	.21	114	.26
1926	12	.30	1	.02	13	.15
1927	13	.32	14	.31	27	.32
1928	16	.39	8	.17	24	.28
1929	9	.22	12	.26	21	.24
1930	15	.36	14	.30	29	.33
1931	17	.40	25	.54	42	.47
1932	13	.31	7	.15	20	.22
1933	6	.14	7	.14	13	.14
1934	10	.23	7	.14	17	.18

17 deaths were ascribed to this group in 1934. This is one of the lowest returns ever recorded. It has been surpassed on only four occasions in the 94 years of our records, viz., 1923 (10 deaths) and 1924. 1926 and 1933 (13 deaths each).

The greatest number of deaths referred to the group in any year of the series was 307 in 1863, and the lowest, 10 in 1923.

The deaths in 1934 included 7 from Whooping Cough, 6 from Diphtheria, and 4 from Diarrhœa.

There were no deaths from Smallpox, Enteric Fever, Scarlet Fever or Measles.

The present position of the mortality experience from this group of diseases is one of the main causes of the decline in the death-rates of young people, particularly those under 5 years of age.

SCARLET FEVER.

There were no deaths from Scarlet Fever in 1934. The Table is self explanatory.

Periods.	Males.		Females.		Persons	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	53	.38	67	.43	120	.41
1851—1860	56	.33	64	.34	120	.33
1861—1870	153	.81	151	.70	304	.75
1871—1880	101	.46	99	.39	200	.42
1881—1890	18	.07	20	.06	38	.07
1891—1900	21	.07	31	.09	52	.08
1901—1910	4	.01	11	.02	15	.02
1911—1920	26	.07	18	.04	44	.05
1921—1930	3	.007	6	.01	9	.01
1841—1845	16	.25	20	.27	36	.26
1846—1850	37	.51	47	.57	84	.54
1851—1855	27	.33	39	.43	66	.38
1856—1860	29	.34	25	.25	54	.29
1861—1865	115	1.26	118	1.13	233	1.19
1866—1870	38	.39	33	.29	71	.34
1871—1875	59	.56	43	.36	102	.45
1876—1880	42	.36	56	.43	98	.40
1881—1885	16	.13	20	.14	36	.13
1886—1890	2	.01	—	—	2	.00
1891—1895	19	.13	18	.11	37	.12
1896—1900	2	.01	13	.07	15	.04
1901—1905	1	.00	5	.02	6	.01
1906—1910	3	.01	6	.03	9	.02
1911—1915	23	.12	15	.07	38	.10
1916—1920	3	.01	3	.01	6	.01
1921—1925	1	.00	5	.02	6	.01
1926—1930	2	.01	1	.00	3	.00
1931	—	—	3	.06	3	.03
1932	—	—	1	.02	1	.01
1933	—	—	—	—	—	—
1934	—	—	—	—	—	—

At the present moment Scarlet Fever is a very mild disease indeed. The average case fatality per cent. over the last 4 years works out at 0.26 per cent., the lowest average since notification began.

The nature of Scarlet Fever is a sufficient warning against accepting this state of affairs as permanent.

DIPHTHERIA.

Diphtheria was responsible for 6 deaths in 1934, a notable decline from the year 1931.

Periods.	Males.		Females.		Persons.	
	No.	Rate.	No.	Rate.	No.	Rate.
1841—1850	19	.13	16	.10	35	.12
1851—1860	23	.13	27	.14	50	.14
1861—1870	43	.22	57	.26	100	.24
1871—1880	56	.25	53	.21	109	.23
1881—1890	77	.30	91	.31	168	.31
1891—1900	72	.24	85	.25	157	.25
1901—1910	57	.17	45	.12	102	.14
1911—1920	69	.19	58	.14	127	.16
1921—1930	27	.06	25	.05	52	.06
1841—1845	7	.10	7	.09	14	.10
1846—1850	12	.16	9	.10	21	.13
1851—1855	7	.08	5	.05	12	.07
1856—1860	16	.18	22	.22	38	.20
1861—1865	24	.26	48	.46	72	.36
1866—1870	19	.19	9	.08	28	.13
1871—1875	15	.14	17	.14	32	.14
1876—1880	41	.35	36	.27	77	.31
1881—1885	20	.16	27	.19	47	.17
1886—1890	57	.43	64	.43	121	.43
1891—1895	51	.36	52	.32	103	.34
1896—1900	21	.14	33	.19	54	.16
1901—1905	30	.18	28	.15	58	.16
1906—1910	27	.15	17	.09	44	.12
1911—1915	35	.19	24	.12	59	.15
1916—1920	34	.18	34	.16	68	.17
1921—1925	9	.04	16	.07	25	.06
1926—1930	18	.08	9	.04	27	.06
1926	3	.07	—	—	3	.03
1927	1	.02	—	—	1	.01
1928	3	.07	1	.02	4	.04
1929	6	.14	5	.11	11	.12
1930	5	.12	3	.06	8	.09
1931	13	.31	11	.23	24	.27
1932	7	.16	5	.10	12	.13
1933	2	.04	5	.10	7	.07
1934	2	.04	4	.08	6	.06

It has been pointed out again and again in these Reports that a new strain of Diphtheria infection was introduced about 1928. This reached its maximum prevalence and severity in 1931. Since then both have declined, but the prevalence much more than the severity.

At the time of writing it can be said that the type now shows distinct signs of declining severity.

WHOOPING COUGH.

7 deaths were referred to Whooping Cough in 1934. The following Table explains the case.

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	76	.55	89	.57	165	.56
1851—1860	66	.39	98	.52	164	.46
1861—1870	82	.43	97	.45	179	.44
1871—1880	126	.57	139	.56	265	.56
1881—1890	110	.43	138	.47	248	.45
1891—1900	98	.33	102	.30	200	.32
1901—1910	75	.22	92	.24	167	.23
1911 1920	64	.17	73	.18	137	.17
1921—1930	33	.08	39	.08	72	.08
1841—1845	31	.48	32	.44	63	.46
1846—1850	45	.62	57	.69	102	.66
1851—1855	26	.32	53	.58	79	.46
1856—1860	40	.46	45	.46	85	.46
1861—1865	33	.36	37	.35	70	.35
1866—1870	49	.50	60	.54	109	.52
1871—1875	60	.57	60	.50	120	.53
1876—1880	66	.57	79	.61	145	.59
1881—1885	44	.35	76	.54	120	.45
1886—1890	66	.50	62	.41	128	.45
1891—1895	52	.37	50	.31	102	.34
1896—1900	46	.30	52	.30	98	.30
1901—1905	45	.28	45	.24	90	.26
1906—1910	30	.17	47	.24	77	.21
1911—1915	39	.21	43	.21	82	.21
1916—1920	25	.13	30	.14	55	.14
1921—1925	17	.09	21	.09	38	.09
1926—1930	16	.07	18	.08	34	.08
1931	—	—	7	.15	7	.07
1932	2	.04	—	—	2	.02
1933	2	.04	1	.02	3	.03
1934	6	.14	1	.02	7	.07

It is evident that the mortality from Whooping Cough continues at a level not previously recorded in the 94 years of our records.

MEASLES.

There were no deaths from Measles in 1934.

Periods.	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	52	.38	35	.22	87	.30
1851—1860	39	.23	32	.17	71	.20
1861—1870	38	.19	36	.16	74	.18
1871—1880	43	.19	36	.14	79	.16
1881—1890	103	.40	93	.32	196	.36
1891—1900	102	.35	79	.22	181	.29
1901—1910	103	.31	90	.24	193	.27
1911—1920	70	.19	52	.12	122	.15
1921—1930	26	.06	21	.04	47	.05
1841—1845	29	.45	12	.16	41	.30
1846—1850	23	.31	23	.28	46	.29
1851—1855	21	.26	15	.16	36	.21
1856—1860	18	.21	17	.17	35	.19
1861—1865	27	.29	26	.24	53	.27
1866—1870	11	.11	10	.09	21	.10
1871—1875	15	.14	12	.10	27	.12
1876—1880	28	.24	24	.18	52	.21
1881—1885	27	.22	27	.19	54	.20
1886—1890	76	.58	66	.44	142	.50
1891—1895	30	.21	34	.21	64	.21
1896—1900	72	.48	45	.26	117	.36
1901—1905	49	.30	40	.22	89	.26
1906—1910	54	.31	50	.26	104	.28
1911—1915	45	.25	37	.18	82	.21
1916—1920	25	.13	15	.07	40	.10
1921—1925	10	.05	12	.05	22	.05
1926—1930	16	.07	9	.04	25	.06
1926	—	—	—	—	—	—
1927	—	—	—	—	—	—
1928	8	.19	3	.06	11	.12
1929	—	—	—	—	—	—
1930	8	.19	6	.13	14	.16
1931	1	.02	2	.04	3	.03
1932	3	.07	—	—	3	.03
1933	1	.02	1	.02	2	.02
1934	—	—	—	—	—	—

Like Whooping Cough, Measles at the moment exhibits a mortality far below anything previously recorded. This is not due to diminished prevalence, but to alteration in the type of the disease and to improved management of cases in the homes of the people. The work of the Health Visitors in this relation is of great value and is greatly assisted by the co-operation of the School Teachers and the Education Authority.

This Table also contains a warning, writ large across it. It shows three distinct phases; first one of decreasing mortality from 1841-1885,

followed secondly by a sudden accession of virulence in the period 1886-1890. Subsequently the deaths were not so numerous, but they remained high until 1911-1915. Since that period they have declined to the present low level.

The warning is not to accept the present state as permanent.

DIARRHŒA.

There were 4 deaths from Diarrhœa under two years of age in 1934.

	Per 1,000 living.			Per 1,000 Births.		
	M	F	P	M	F	P
1841—1850	1.09	.73	.90	31.15	24.52	27.90
1851—1860	1.11	.98	1.04	30.22	31.86	31.03
1861—1870	.83	.69	.76	23.36	22.96	23.17
1871—1880	1.28	.95	1.10	34.97	31.03	33.05
1881—1890	.68	.53	.60	19.95	18.03	19.00
1891—1900	1.31	1.01	1.14	41.95	38.26	40.14
1901—1910	.62	.41	.53	21.59	18.12	19.89
1911—1920	.32	.21	.26	13.75	10.51	12.21
1921—1930	.09	.05	.07	5.13	3.51	4.33
1841—1845	.51	.37	.44	16.20	13.13	14.66
1846—1850	1.59	1.05	1.30	42.22	33.69	38.12
1851—1855	1.21	1.05	1.12	33.28	33.17	33.23
1856—1860	1.02	.93	.97	27.41	30.61	28.96
1861—1865	.99	.83	.90	27.20	27.67	27.43
1866—1870	.71	.55	.63	19.73	18.54	19.15
1871—1875	1.28	.93	1.09	35.08	30.44	32.81
1876—1880	1.28	.96	1.11	34.88	31.56	33.27
1881—1885	.69	.58	.63	20.00	19.14	19.55
1886—1890	.66	.48	.57	20.00	16.92	18.45
1891—1895	1.01	.75	.88	31.72	28.11	29.94
1896—1900	1.59	1.24	1.40	51.79	48.29	50.09
1901—1905	.74	.53	.63	24.49	20.34	22.45
1906—1910	.51	.37	.43	18.56	15.80	17.21
1911—1915	.48	.36	.42	19.41	16.85	18.16
1916—1920	.15	.06	.11	7.33	3.65	5.52
1921—1925	.14	.07	.10	7.05	3.8	5.44
1926—1930	.06	.05	.05	3.18	3.13	3.15
1931	.07	.04	.05	4.27	3.00	3.64
1932	—	.02	.01	—	1.44	.73
1933	.02	—	.01	1.51	—	.78
1934	.04	.04	.04	3.07	3.17	3.12

The last appreciable Diarrhœa Death-rate occurred in 1921.

All the deaths in 1934 were under 1 year of age.

2 occurred in July, and one each in August and September.

INFLUENZA.

The Table explains the statistical position sufficiently.

Period.	Deaths and Death-Rates from Influenza.					
	Number of Deaths			Death-Rates per 1,000 living.		
	M.	F.	P.	M.	F.	P.
1841—1850	10	13	23	.073	.084	.079
1851—1860	3	3	6	.018	.015	.016
1861—1870	4	1	5	.028	.004	.012
1871—1880	—	2	2	.000	.008	.004
1881—1890	1	4	5	.003	.013	.009
1891—1900	121	143	264	.418	.433	.425
1901—1910	79	82	161	.239	.220	.228
1911—1920	171	204	375	.471	.505	.490
1921—1930	101	132	233	.258	.300	.280
1841—1845	2	4	6	.031	.055	.044
1846—1850	8	9	17	.110	.110	.110
1851—1855	3	1	4	.037	.011	.023
1856—1860	—	2	2	—	.020	.010
1861—1865	3	1	4	.033	.009	.020
1866—1870	1	—	1	.010	—	.004
1871—1875	—	1	1	—	.008	.004
1876—1880	—	1	1	—	.007	.004
1881—1885	—	—	—	—	—	—
1886—1890	1	4	5	.007	.026	.017
1891—1895	71	86	157	.511	.533	.525
1896—1900	50	57	107	.333	.333	.333
1901—1905	32	36	68	.199	.198	.199
1906—1910	47	46	93	.276	.241	.258
1911—1915	39	36	75	.217	.182	.198
1916—1920	132	168	300	.722	.819	.774
1921—1925	40	68	108	.209	.317	.266
1926—1930	61	64	125	.304	.284	.293
1931	6	5	11	.144	.107	.125
1932	9	23	32	.215	.490	.360
1933	15	16	31	.356	.340	.348
1934	6	3	9	.141	.063	.099

1934 was not an Influenza year. This is confirmed by the low Respiratory Mortality.

The highest mortalities both from Influenza and the group of Respiratory diseases occurred in the month of March.

The Table illustrates the tendency to variation inherent in all infections, and it contains a very special warning to the observer not to be misled into the assumption that the type existing in a locality at any time is the permanent type for that locality.

The Table shows two distinct phases, one from 1841-1890 of low prevalence, and one of high prevalence from 1891 to the present day.

It does not follow that Influenza was absent altogether in the years in which there were no fatalities. The death-rates indicate no more than that deaths were or were not ascribed to Influenza, and there may be a great deal of mild Influenza without fatalities, the community having acquired immunity more or less complete to the particular strain.

The change in 1891 was clear cut and exhibited the effects of the introduction of new strains of infection into a community only partially protected against the new types, with the results shown in the Table.

The Pandemic of 1918 was another illustration of the same kind of thing. This particular epidemic exhibited many peculiar features, not the least of which was the period of the year in which the fatalities were most numerous. This was November, whereas in every other epidemic the maximum density of the epidemic has fallen on the early part of the year, with particular emphasis on the month of February.

The data dealing with Scarlet Fever and Measles show exactly the same variations in type, and we are only just emerging from experience of a severe type of Diphtheria.

I can only reiterate the warning repeatedly given in these Reports that there is no guarantee of persistence in types of infections. On the contrary, all the infections exhibit variations, frequently without the slightest warning, e.g., Influenza in 1891 and 1918, Scarlet Fever about 1885 and Diphtheria in 1928.

We can in short expect that severe infections will abate in time owing to community immunisation against the particular strains, whereas mild infections may be replaced by severe varieties with the introduction of new strains against which the immunity produced by the old strains is only partially protective.

Experience has shown that variation is the one constant characteristic of all infections.

Our series of statistics comprises 94 years, and thus enables us to take the long view. The long view is packed with information for the formation of sound opinion. The short view, which is the usual one, merely invites immature judgments.

DEATHS FROM TUBERCULOSIS.

75 deaths (34 males, 41 females) were ascribed to the various forms of Tuberculosis in 1934, as compared with 59, 75, 88, 67 and 80 respectively in the five preceding years. 64 of the deaths (32 males, 32 females) were referred to the Pulmonary variety of the disease and 11 (2 males, 9 females) to the Non-Pulmonary forms.

The annexed Table shows the death-rates per million living from the various forms of Tuberculosis from 1841-1850 to the present date.

DEATH-RATES FROM TUBERCULOSIS PER MILLION LIVING.

IPSWICH.

Periods.	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.			All forms of Tuberculosis.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841—1850	3,529	3,610	3,572	360	357	359	3,890	3,968	3,931
1851—1860	2,725	3,088	2,918	551	420	481	3,276	3,508	3,400
1861—1870	2,819	2,857	2,839	570	344	449	3,390	3,201	3,289
1871—1880	2,739	2,423	2,571	476	496	486	3,215	2,919	3,058
1841—1880	2,909	2,921	2,915	496	411	451	3,405	3,333	3,367
1881—1890	2,167	1,970	2,062	630	608	618	2,797	2,578	2,680
1891—1900	1,984	1,526	1,740	450	430	439	2,435	1,956	2,179
1881—1900	2,070	1,733	1,890	534	512	522	2,604	2,246	2,413
1901—1910	1,728	1,215	1,456	397	363	379	2,125	1,579	1,836
1911—1920	1,332	1,069	1,193	367	282	322	1,700	1,352	1,516
1921—1930	986	703	837	186	157	168	1,173	860	1,008
1841—1845	3,873	4,019	3,950	94	152	125	3,968	4,172	4,076
1846—1850	3,228	3,252	3,241	593	537	563	3,822	3,790	3,805
1851—1855	3,105	3,296	3,207	638	420	522	3,744	3,717	3,729
1856—1860	2,368	2,894	2,649	469	420	443	2,837	3,315	3,092
1861—1865	2,520	3,071	2,814	517	297	399	3,037	3,359	3,214
1866—1870	3,101	2,655	2,863	620	388	496	3,721	3,044	3,359
1871—1875	2,808	2,607	2,701	469	538	498	3,277	3,146	3,207
1876—1880	2,676	2,253	2,452	482	456	469	3,159	2,710	2,921
1881—1885	2,359	2,143	2,244	644	640	642	3,004	2,783	2,887
1886—1890	1,986	1,808	1,891	616	578	595	2,602	2,386	2,487
1891—1895	2,131	1,701	1,901	439	351	392	2,571	2,052	2,294
1896—1900	1,848	1,363	1,590	460	503	483	2,308	1,866	2,073
1901—1905	1,779	1,335	1,543	349	331	339	2,128	1,667	1,883
1906—1910	1,679	1,100	1,373	442	394	417	2,121	1,495	1,790
1911—1915	1,468	981	1,212	357	246	299	1,825	1,227	1,511
1916—1920	1,199	1,155	1,175	377	318	346	1,577	1,473	1,522
1921—1925	1,085	779	923	183	154	167	1,268	933	1,091
1926—1930	892	631	754	189	160	173	1,082	791	928
1931	869	776	820	144	215	182	1,014	992	1,002
1932	788	661	721	95	149	124	884	811	845
1933	618	425	516	214	85	145	832	510	662
1934	732	672	709	47	189	122	799	861	831

The Table reveals that the annual death-rates from all forms of Tuberculosis continue on the down grade.

At the moment the average female death-rates remain stationary, the whole of the decline during the last four years being due to the drop in the male Tuberculosis death-rate.

In round figures the Tuberculosis death-rate has been halved since the beginning of this Century, and the process does not seem to be coming to an end, even though the average female rate is at the moment stationary. In this case the rate recorded for females in 1933 points quite clearly to further progress.

No consideration of Tuberculosis is complete without reference to the age distribution of the death-rates.

I give a Table showing this side of the problem in terms of death-rates per million living of persons at 15 age periods.

The sex age-period death-rates are omitted for the sake of brevity.

The periods taken are the averages of the 40 years 1841-1880, of the 20 years 1881-1900, of the three subsequent Decennial periods, and the last 4 years.

TUBERCULOSIS DEATH-RATES PER MILLION LIVING (AGE DISTRIBUTION AND PERSONS).

	1841—1880	1881—1900	1901—1910	1911—1920	1921—1930	1931—1934
— 5	3.488	3.020	2.405	1.869	.731	.608
—10	1.081	1.006	.802	.458	.275	.137
—15	1.300	1.041	.604	.531	.270	.209
—20	3.018	1.969	1.221	1.455	.769	.826
—25	4.620	2.758	2.181	1.924	1.369	1.167
—30	5.136	2.996	2.032	1.959	1.247	1.486
—35	5.107	3.212	2.227	1.897	1.494	.950
—40	5.434	3.497	2.464	1.878	1.278	.867
—45	4.780	3.492	2.256	1.990	1.464	1.019
—50	4.275	3.700	2.579	2.044	1.362	1.017
—55	3.547	2.776	2.065	1.788	1.452	1.467
—60	3.350	2.268	2.796	1.660	1.141	.804
—65	2.225	2.442	2.118	1.358	1.142	.915
—70	2.245	2.620	2.043	1.737	1.215	.681
+70	.690	.948	1.722	.522	.408	.346
All ages	3.367	2.413	1.836	1.516	1.008	.834

This shows in a very telling manner the great changes that have taken place in the Tuberculosis death-rates within the period comprised in the Table, and it is particularly interesting that the process is shown to be still going on.

The remarkable decline in the Mortality Rates of young people from Tuberculosis since the beginning of this Century is brought out vividly and provides food for thought as well as congratulation. At the same time it should be noted that the mortality declines are not confined to the young, but are experienced at all ages, which is also a fact of high significance.

There is legitimate room for doubt as to the precise value to be attached to the Tuberculosis figures of the last Century, but this should not blind us to the fact that they are of value in providing us with a general notion of Tuberculosis Mortality at that period.

The figures for this Century are much more reliable, at least locally, and really can be accepted as reasonably near the truth, sufficiently so, at any rate, to justify the statement that it is a fact that the mortality from all forms of Tuberculosis at all ages has been cut in two since the beginning of the 20th Century. I again direct attention to the declines amongst young people.

Whilst on this aspect of the question, I reproduce a Table from last year's Report, in which is given the deaths of infants from different forms of Tuberculosis and the death-rates of infants from all forms of Tuberculosis arranged in decennial periods.

DEATHS FROM TUBERCULOSIS -I AND DEATH-RATES -I.

	Number of Deaths under 1 year.				Death-Rates per 1,000 Births.
	Pulmonary.	Cerebral.	Abdominal.	All Forms.	
1841—1850	31	—	34	68	7.241
1851—1860	56	3	61	120	10.062
1861—1870	21	3	59	85	6.394
1871—1880	17	10	50	82	5.252
1881—1890	20	41	30	98	5.729
1891—1900	15	21	27	68	3.710
1901—1910	17	14	15	59	3.138
1911—1920	7	18	10	43	2.600
1921—1930	1	10	—	12	.800
1931—1934	—	3	—	4	.754

From this it would appear that Pulmonary and Abdominal Tuberculosis have practically disappeared as a cause of death under 1 year.

Tuberculous Meningitis and General Tuberculosis are the only Tuberculous conditions included in this Table, and the number of deaths averages 1 per annum at the moment.

I do not contend that the figures of the last Century are accurate. It could not be held, for instance, that the column of figures referring to Tuberculous Meningitis could be accepted as correct, any more than the Pulmonary or Abdominal columns, but they do give a basis upon which it is possible to form a general notion.

The foregoing observations and statistical data pave the way to the practical question—What does all this mean?

The answer is not as easy as the question because of the complexity of the conditions determining the establishment of Tuberculous diseases.

A full discussion of this would require many volumes and is impossible here, but one or two salient points can be touched upon.

The answer to our question involves others of the greatest importance, viz.,

1. Is the decline in Tuberculosis Mortality due to diminished fatality, or, in other words, do more people recover from Tuberculous Disease?

2. Is it due to diminished prevalence of the disease?

3. Is it due to an increasing degree of racial immunity brought about by the normal processes of racial immunisation, viz., the elicitation of the immunising response in answer to the germ attack?

4. Is it associated with variations of type of the group of germs (all Tubercle Bacilli) responsible for the disease manifestations?

These four questions do not exhaust the subject by any means, but they will suffice for this Report.

None can be answered categorically, but it is possible to come to definite conclusions about them all if they are examined in the light of modern epidemiological knowledge.

It is universally recognised that Tuberculous disease in men and animals is caused by Tubercle Bacilli. These form a group of germs which act in exactly the same way as other germs, viz., by gaining entrance to the body, by growing and multiplying in the body and by producing poisonous substances which pass into the lymph and blood stream and are carried thereby to every part of the body. The tissue cells are attacked by these poisons and are excited to produce anti-poisons and their success or failure determines the fate of the individual. The germs causing the disease vary in their virulence or disease producing capacity, and they exercise their effects upon individuals whose capacity for resisting the attack varies as much as the virulence of the germs themselves. Hence, in part at least, the variations in the clinical features of Tuberculous Disease.

The one constant characteristic of germs and humans is variability.

For practical purposes the germs of Tuberculosis gain entrance to the human body in two ways :—

1. From the air. In this case infection is spread in one of two forms :—

(a) In the acts of breathing and speaking, and of course much more so in the acts of coughing and sneezing, the air in the immediate vicinity of a person is sprayed with mucus from the nose, throat and lungs. If the person is suffering from Tuberculosis of the Lung, that mucus may and very frequently does contain, the living virulent germs of that person's infection. Any other person in the immediate vicinity inhaling this

air into his own lungs may thereby implant the infection in his own system. This is the so-called Droplet Method of Infection.

(b) The Droplets produced in this way are possessed of weight and in due course fall to the ground or the floor or other flat surface and become incorporated with the dust of the room or street. In the course of time the dust dries, but the germs of Tuberculosis do not die, as so many other germs do, but continue to live and retain their virulence over long periods.

Whenever this dust is disturbed, as in the process of dusting a room, or in the streets by the wind, etc., it is whirled up in the air and may be inhaled by people in the vicinity. It will be realised that when Tuberculous or other people are in the habit of spitting wherever and whenever they feel inclined, the danger of infecting floors, streets, etc., with spit laden with the germs of Tuberculosis is a very real one. This infected spit dries, as has been described, and in time produces an infected, dangerous dust, especially in a room where there is darkness and insufficient air supply.

Thus we see that the infection of human Tuberculosis is spread by :

(a) Air infected by Droplets from infected persons.

(b) Air infected by dust that has been infected by—

(1) Droplet Infection and

(2) Sputum infection in bulk.

2. The second great source of Tuberculous Infection is the milk from Tuberculous cows, and by this I mean (for practical purposes) the milk from cows suffering from Tuberculosis of the Udder.

Of these two methods of infection, by far the most important is the first, or human source, though due cognisance must be taken of the second.

Tuberculous dust is disinfected by Nature's great disinfectants, the oxygen of the air and sunlight. Exposure to direct sunlight kills the Tubercle Bacillus in a short time. If oxygen and light are the enemies of Tuberculosis, want of light and fresh air are the allies necessary for the preservation of the life of the germs of the disease. This at once focusses attention on overcrowding of houses on area, interfering with the free circulation of air and the direct entry of sunlight. We differentiate quite clearly between the dangers of open-air dust, exposed to the action of air and sunlight, and indoor dust where potentiality for evil is fostered by darkness and air stagnation. This is one of the reasons why dirt in a house is so dangerous and why cleanliness is so necessary. "Where there is dirt there is danger" is a true slogan.

Any condition in a house permitting of the lodgement of dust is in this way a direct source of danger to health.

We have shown how dust becomes infected with Tuberculosis. This brings us to another aspect.

It is common knowledge that people may be infected with Tuberculosis for long periods, may be years, before the Tuberculous process is discovered. During the whole of this time they are potential sources of infection, and as they are unaware that they are Tuberculous, they take no precaution about coughing and spitting. In this relation the filthy habit of indiscriminate spitting all over the place is far less prevalent than formerly, so that this particular danger is a diminishing one.

Again it must be recollected that cases of Tuberculosis last for years, and during that time are potential infectors of air and dust. In this relation we must not lose our sense of proportion. There has been too much talk about the infectivity of Tuberculosis in circles accredited by the laity with knowledge, with the inevitable consequence that sufferers from Tuberculosis have come to be regarded as lepers by large numbers.

It cannot be emphasised too much that the dangerous Tuberculous people are :—

1. Those who do not know that they are Tuberculous, and
2. Those who know, but are too ignorant and antisocial to take the necessary care of their cough and their sputum.

Nothing will meet this difficulty but propaganda of the right type.

The people suffering from Lung Tubercle who know that they are a source of potential danger, and who practise care of their cough and spit, are safe associates of their fellows. This fact should be acclaimed in all Anti-Tuberculosis propaganda.

The infectivity of cases of Tuberculosis of the Lung is one thing, but that of cases of Measles, Influenza, Scarlet Fever, etc., is another and very different proposition altogether.

The danger of Tuberculous infection arises in cases where there is prolonged and intimate exposure under conditions suitable not only for direct Droplet infection, but for the continuance of existence of the germ of Tuberculosis outside the human body, viz., dirt, darkness, want of air. Thus overcrowding in the home is a potent danger in both these respects.

It is part of our argument that the introduction of the germs into the human body is not necessarily followed by the establishment of

recognisable Tuberculous disease. Nothing obvious may happen at all. There is overwhelming Post Mortem evidence that conditions of this kind are extremely common and that few children escape infection.

The position is, that under the conditions of modern civilsation in this country, few people reach adult life without attacks by the germs of Tuberculosis.

This is the natural outcome of the mode of spread of Tuberculous infection already given.

The acceptance of this view involves the acceptance of a corollary of the greatest possible significance, viz., if the sources of infection of Tuberculosis are so universal as to cause practically universal infection in childhood, then the older members of such a community must be exposed to and receive constant reinfections. If this is the case, and in my opinion, it is the case, then it follows logically, in strict accordance with ascertained fact, that the same protection of the community by natural immunisation holds good in Tuberculosis as it does in many other microbic infections.

In other words, repeated dosage with the Tubercle Bacillus immunises the community against the disease, except those in whose case the virulence or mass of the attack is so great as to overcome their defensive forces and eventuate in the established disease. In these cases, if the defensive forces prove continuously inadequate, the case proceeds to its fatal issue sooner or later, but usually after prolonged illness. On the other hand, the defensive forces may ultimately get the upper hand and the disease process become arrested and recovery eventually ensue, either completely or partially.

Thus we arrive at the position that the decline in the Tuberculosis death-rate is not due to diminution in the prevalence of the infection of Tuberculosis, but to an increase in the number of persons endowed with qualities of the types necessary to meet and overcome the attack of the germ of Tuberculosis. In other words, races are being evolved that are becoming more and more immune from the development of clinical Tuberculosis. We stress here the quality of hereditary resisting capacity rather than hereditary predisposition. The vast majority of people are capable of preventing Tuberculous infection from making progress.

We are now in a position to give an answer to the questions with which we began.

The decline in Tuberculosis Mortality is due not to diminished communal infection, but to increased power on the part of members of the community :—

(a) Of preventing the disease developing at all.

(b) Of recovery when it has occurred.

Of these the most potent is the first.

There is no evidence of cyclical changes either in the prevalence or the character of Tuberculosis.

No consideration of this part of the subject would be complete without reference to the changes that have taken place in the circumstances of the people since the closing decades of the 19th Century. There is a general consensus of opinion that in spite of unemployment, the people are better housed and better fed than they were, and there is no question that the laws of healthy living are understood and practised by the people as a whole as they never were before.

These facts are of prime importance.

I do not believe that the prevention of infection with Tuberculosis is possible, but I do believe that with adequate nutrition, proper housing, and understanding of the simple laws of healthy living, a race can be evolved equipped to prevent the establishment of Tuberculous Diseases amongst its members. I believe that we are witnesses of this process in action now.

CANCER.

151 deaths (62 males, 89 females) were referred to Cancer in 1934, as compared with 154, 155, 133, 146 and 136 respectively in the five preceding years.

The death-rate of males was a little higher and of females definitely lower than in the previous year, and there was a fractional decline in the death-rate of persons as compared with the high records of the previous two years.

The average sex death-rates for the years 1931-1934 show the same tendency to increase that has been such a characteristic feature of Cancer Statistics.

It is not settled to what extent the increase is purely statistical, but it is perfectly evident that the available Cancer figures are to be regarded as showing nothing that should be accepted as unequivocal evidence that there is, in fact, a real and progressive increase in the incidence of Cancer.

Period.	Numbers and Crude Death-rates.					
	Males.		Females.		Persons.	
	No.	Rates.	No.	Rates.	No.	Rates.
1841—1850	12	.08	50	.32	62	.21
1851—1860	21	.12	80	.42	101	.28
1861—1870	47	.24	143	.66	190	.47
1871—1880	96	.43	193	.77	289	.61
1881—1890	115	.45	243	.84	358	.66
1891—1900	182	.62	299	.90	481	.77
1901—1910	290	.87	413	1.11	703	.99
1911—1920	399	1.10	562	1.39	961	1.25
1921—1930	523	1.33	694	1.57	1217	1.46
1841—1845	4	.06	24	.33	28	.20
1846—1850	8	.11	26	.31	34	.22
1851—1855	12	.15	43	.47	55	.32
1856—1860	9	.10	37	.38	46	.25
1861—1865	12	.13	77	.74	89	.45
1866—1870	35	.36	66	.59	101	.48
1871—1875	48	.46	103	.86	151	.67
1876—1880	48	.42	90	.69	138	.56
1881—1885	50	.41	117	.84	167	.63
1886—1890	65	.50	126	.84	191	.68
1891—1895	74	.53	145	.90	219	.73
1896—1900	108	.72	154	.90	262	.81
1901—1905	117	.73	164	.90	281	.82
1906—1910	173	1.01	249	1.31	422	1.17
1911—1915	196	1.09	274	1.38	470	1.24
1916—1920	203	1.11	288	1.40	491	1.26
1921—1925	256	1.33	329	1.53	585	1.44
1926—1930	267	1.32	365	1.62	632	1.48
1926	44	1.10	61	1.38	105	1.24
1927	50	1.23	66	1.45	116	1.34
1928	49	1.21	80	1.75	129	1.50
1929	57	1.41	79	1.73	136	1.58
1930	67	1.63	79	1.72	146	1.68
1931	47	1.13	86	1.85	133	1.51
1932	67	1.60	88	1.89	155	1.76
1933	59	1.40	95	2.01	154	1.72
1934	62	1.45	89	1.86	151	1.67

One of the most important determining factors in the incidence of Cancer is age. Cancer is a disease of middle life onwards.

There is but little Cancer in males under 40 years of age and no reliable evidence of a tendency to increase, even statistical.

In females, there is little Cancer under 25 years of age, but between that and 40 years of age there is a much higher death-rate than amongst males. This is due to the liability of the female generative system to be the site of Cancer.

After 40 years of age the death-rate of both sexes from Cancer increases rapidly, the highest rates being recorded at ages over 70.

I give a Table showing the age and sex distribution of the death-rates from Cancer from 1841-1934, arranged in a period of 40 years from 1841-1880, 20 years from 1881-1900, 3 periods of 10 years up to 1930, and the last four years.

AGE AND SEX DISTRIBUTION OF THE DEATH-RATES FROM CANCER PER MILLION LIVING.

Age Periods.	1841—1880.			1881—1900.			1901—1910.			1911—1920.			1921—1930.			1931—1934.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P
— 5	20	20	20	—	43	21	—	26	13	82	27	55	58	—	29	70	—	35
— 10	—	11	5	15	—	7	27	27	27	51	53	52	55	54	55	—	67	34
— 15	12	—	6	32	31	31	—	54	28	—	—	—	27	26	27	—	68	34
— 20	29	12	20	54	—	24	—	—	—	—	27	14	28	26	27	139	—	66
— 25	32	24	28	43	17	28	70	—	32	—	29	16	32	79	58	—	—	—
— 30	55	121	91	72	100	88	76	128	104	69	184	130	97	58	77	—	67	34
— 35	127	298	221	26	277	161	40	105	75	35	196	119	106	183	147	162	143	152
— 40	70	724	418	274	586	440	273	916	616	190	673	447	292	479	392	178	230	206
— 45	261	916	618	312	1,168	772	716	1,130	936	467	1,011	756	529	1,083	821	273	1,509	934
— 50	249	1,801	1,083	867	1,669	1,302	1,398	1,859	1,644	925	2,086	1,539	1,023	2,003	1,532	456	2,143	1,326
— 55	718	1,842	1,328	1,613	2,359	2,019	2,371	2,651	2,523	1,999	2 513	2,276	2,439	2,634	2,542	1,789	3,343	2,603
— 60	917	1,987	1,498	2,176	4,541	3,481	3,928	3,582	3,741	3,338	3,792	3,580	3,731	3,389	3,550	3,761	3,346	3,541
— 65	1,239	2,682	2,041	3,266	3,442	3,365	4,846	5,288	5,095	5,236	4,085	4,595	4,662	5,445	5,093	4,923	4,767	4,838
— 70	2,447	2,552	2,505	5,108	6,096	5,664	5,939	5,854	5,890	10,417	7,973	9,033	8,205	6,638	7,334	8,092	7,793	7,925
— 75	1,967	2,714	2,404	5,479	4,287	4,804	9,045	7,705	8,252	11,039	10,550	10,740	12,436	8,575	10,140	9 845	11,510	10,814
— 80	2,331	2,822	2,603	3,124	4,797	4,099	9,230	8,826	8,992	15,178	11,200	12,736	13,992	12,573	13,108	18,743	15,286	16,621
— 85	2,797	2,663	2,714	2,820	6,563	5,025	6,172	7,105	6,705	6,905	11,389	9,699	11,420	15,877	14,238	19,335	17,758	18,330
+ 85	935	517	666	4,746	2,791	3,389	1,808	8,858	6,373	5,076	9,090	7,590	8,962	11,242	10,495	7,772	14,666	12,324
All Ages	248	579	424	548	877	723	879	1,112	1,002	1,103	1,394	1,256	1,336	1,580	1,465	1,400	1,905	1,667
+ 70	2,131	2,579	2,393	4,400	4,659	4,551	8,208	8,034	8,106	11,300	10,754	10,962	12,554	11,102	11,663	13,584	13,842	13,740

This Table is extremely plain in its meaning, and if looked at with understanding of the inevitable fluctuations of small communities, will give a sound broad general view of the age and sex incidence of Cancer in this area.

I call special attention to the period 1931-1934. The heavy mortality at ages over 70 years is very notable, especially the females. The chart shows that at these ages, at least since the beginning of this Century, the average female death-rates have been considerably below the male, whereas in 1931-1934 the female preponderance was resumed in conformity with the average experience of the last 60 years of the 19th Century.

SITE DISTRIBUTION OF THE DEATHS FROM CANCER IN 1934.

This is best shown in a short Table of the principal sites :—

Organ affected.	Males.	Females.	Persons.
Intestines	10	17	27
Stomach	11	12	23
Rectum	8	8	16
Uterus	—	16	16
Breast	—	13	13
Liver	6	5	11

This list is almost the same as that of last year. The same organs are included in each list, but in 1933 the order was slightly different.

The most common site is the Intestines, especially of women.

DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM.

The group includes Laryngitis, Bronchitis, Pneumonia, Pleurisy, Asthma, etc.

123 deaths (63 males, 60 females) were referred to the group in 1934 as compared with 127, 155, 151, 86 and 156 respectively in the five preceding years.

66 deaths (32 males, 34 females) were referred to Bronchitis, 47 (27 males, 20 females) to Pneumonia, and 10 (4 males, 6 females) to all other forms of Respiratory Disease. Thus rather more than one-half of all the Respiratory deaths were due to Bronchitis.

Respiratory diseases were responsible for 12.5 per cent. of the deaths from all causes; a proportion considerably below the average.

The deaths were most numerous in March (24), November (16), February (15), and January (13), and fewest in August (3), and May (3).

8 of the deaths were under 5 years of age and 69 over 70.

The number of Respiratory deaths under 5 years of age was by far the lowest for any year since 1841.

Periods.	Diseases of the Respiratory System.						
	Deaths.			Death-Rates.			Male deaths per 1,000 Female deaths.
	M.	F.	P.	M.	F.	P.	
1841—1850	502	471	973	3.68	3.06	3.35	1,065
1851—1860	636	558	1194	3.84	2.96	3.37	1,139
1861—1870	704	657	1361	3.67	3.05	3.37	1,071
1871—1880	832	754	1586	3.81	3.03	3.39	1,103
1881—1890	924	802	1726	3.65	2.78	3.19	1,152
1891—1900	1063	918	1981	3.67	2.77	3.18	1,158
1901—1910	788	795	1583	2.38	2.13	2.24	991
1911—1920	852	820	1672	2.34	2.03	2.18	1,040
1921—1930	718	774	1492	1.83	1.75	1.79	927
1841—1845	202	161	363	3.17	2.23	2.67	1,254
1846—1850	300	310	610	4.13	3.78	3.95	967
1851—1855	320	284	604	4.00	3.14	3.54	1,126
1856—1860	316	274	590	3.70	2.81	3.22	1,153
1861—1865	353	339	692	3.88	3.25	3.54	1,041
1866—1870	351	318	669	3.62	2.87	3.22	1,103
1871—1875	384	346	730	3.67	2.90	3.27	1,109
1876—1880	448	408	856	3.92	3.15	3.51	1,098
1881—1885	453	406	859	3.69	2.91	3.28	1,115
1886—1890	471	396	867	3.62	2.66	3.10	1,189
1891—1895	591	494	1085	4.25	3.06	3.63	1,196
1896—1900	472	424	896	3.14	2.48	2.78	1,113
1901—1905	378	402	780	2.35	2.21	2.28	940
1906—1910	410	393	803	2.41	2.06	2.23	1,043
1911—1915	465	381	846	2.59	1.91	2.23	1,220
1916—1920	387	439	826	2.11	2.14	2.13	881
1921—1925	347	392	739	1.81	1.82	1.81	885
1926—1930	371	382	753	1.84	1.69	1.76	971
1931	70	81	151	1.69	1.74	1.72	864
1932	60	95	155	1.43	2.02	1.74	631
1933	63	64	127	1.49	1.36	1.42	984
1934	63	60	123	1.48	1.26	1.36	1,050

One of the chief factors in the determination of Respiratory mortality is the season of the year. The mortality is always highest in the winter and lowest in the summer.

The Table showing the quarterly decennial Death-rates per million living from Respiratory Disease proves this point sufficiently.

	−5.			−10.			−15.			−20.			25.			−30.			−35.			−40.			−45.			−50.			−55.			−60.			−65.			−70.			+70.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1841—1880	13,134	11,117	12,140	572	796	685	215	201	208	265	427	353	506	311	396	626	499	556	1,042	596	798	1,478	911	1,177	1,567	982	1,248	3,275	1,264	2,195	4,137	2,014	2,985	6,277	4,461	5,290	6,456	7,098	6,813	12,587	10,626	11,648	20,901	18,354	19,4
1881—1900	13,671	9,837	11,733	540	485	514	112	173	143	252	167	206	304	259	279	776	343	539	587	393	483	1,401	826	1,094	1,737	929	1,303	2,436	1,495	1,925	3,687	1,818	2,671	5,293	3,346	4,219	9,527	4,978	6,969	11,979	11,576	11,752	21,421	20,548	21,0
1901—1910	8,777	8,337	8,541	380	379	380	115	27	70	153	135	157	247	122	180	418	96	242	527	494	507	637	398	508	868	317	576	1,580	902	1,216	2,369	1,329	1,798	3,036	2,057	2,507	4,040	4,300	4,191	7,353	5,852	6,430	19,288	18,130	18,6
1911—1920	8,167	5,643	6,900	387	503	445	110	241	176	269	190	227	214	324	273	277	338	309	393	98	239	609	705	662	1,198	635	895	1,022	522	755	2,153	754	1,409	3,266	1,772	2,470	4,876	2,796	3,720	9,274	6,632	7,896	19,978	19,810	19,8
1921—1930	4,360	3,252	3,825	248	274	260	55	106	81	172	157	164	226	105	159	325	175	246	460	153	295	584	446	511	718	469	587	1,139	582	851	1,398	851	1,110	1,784	1,383	1,568	3,420	2,244	2,777	5,821	5,084	5,409	19,536	18,696	19,0

DECENNIAL DEATH-RATES FROM RESPIRATORY DISEASES PER MILLION PERSONS LIVING FOR EACH QUARTER OF THE YEAR SINCE 1841-1850.

Period	March	June	September	December
1841—1850	5,213	2,978	1,891	3,384
1851—1860	4,963	3,473	1,698	3,431
1861—1870	5,100	3,071	1,991	3,392
1871—1880	5,240	3,030	1,490	3,874
1881—1890	4,857	2,823	1,550	3,579
1891—1900	5,425	2,737	1,411	3,265
1901—1910	3,748	1,918	1,064	2,328
1911—1920	3,798	1,947	872	2,154
1921—1930	3,430	1,321	734	1,712

The Table is self explanatory It will be noted that the lowest mortalities were recorded in each case in the period 1921-1930.

The greatest proportional decline occurred in the September Quarter and the least in the March Quarter.

The principal Table shows that the male mortality from Respiratory diseases is almost invariably higher than the female so far as Decennial periods are concerned. It also shows that of recent years there is a definite tendency for the sex death-rates to approach each other.

Age is another factor of prime importance in connection with Respiratory mortality.

I give a Table showing the age and sex distribution of the Death-rates per million living at 15 age periods. The periods 1841-1880 and 1881-1900 are shown as averages of 40 and 20 years respectively for the sake of brevity.

See table facing this page.

Thus the Respiratory mortality at all times is at its lowest at 10-15 years of age, and highest over 70 years.

Substantial declines in the age mortalities are shown at all age periods with the exception of that over 70 years of age.

The influence of the Respiratory mortality associated with the great Influenza epidemic of 1918 is well shown in the figures recording the experience of 1911-1920.

The excessive male mortality of the middle age periods is conspicuous.

Finally, I call attention once more to the close relationship between Respiratory mortality and slum conditions. This is directly due to overcrowding of houses on area and of persons in houses, to inadequate ventilation of rooms of such properties in consequence of situation, faulty windows and deficient height, together with faulty house designing. Interference with adequate exposure to direct sunlight is a direct consequence of overcrowding of houses on area and is fraught with disastrous consequences to the health of the slum population.

Filth conditions, the inseparable concomitants of slumdom, favour the incidence of Respiratory diseases and increase their severity.

DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM.

(a) DISEASES OF THE HEART.

201 deaths (94 males and 107 females) were ascribed to Diseases of the Heart in 1934 as compared with 229 in 1933, 194 in 1932, and 199 in 1931. Thus the experience in 1934 was about the average of recent years.

Degenerative changes of the Heart muscle accounted for 128 (55 males and 73 females), of whom 127 were over 45 years of age.

Chronic Endocarditis was responsible for 34 deaths (14 males and 20 females). Of these 6 were under 45 years of age.

19 of the deaths in this group were referred to Mitral Disease.

Angina Pectoris was given as the cause of 29 deaths (22 males and 7 females). There has been a considerable increase in the number of deaths from Angina in recent years, almost entirely owing to the routine performance of Post Mortem examination in cases of sudden death.

The male excess is characteristic of this disease.

The increase in the number of deaths referred to Diseases of the Heart is statistical, not real. It represents a change in classification due to changes in certification of the cause of death. The alteration has taken place almost entirely at the expense of Senility; a condition given as the cause of death with diminishing frequency year by year, although as a contributory cause mentioned as often as before.

The Table indicates the rapid statistical increase in the last few years :—

Period.	No. of Deaths.	Death Rates.
1901—1905	357	1.04
1906—1910	400	1.11
1911—1915	496	1.30
1916—1920	474	1.22
1921—1925	459	1.12
1926—1930	618	1.44
1931—1933	622	2.33
1934	201	2.22

In round figures two-thirds of the deaths from Diseases of the Heart are of persons over 70 years of age.

(b) DEATHS ASCRIBED TO ARTERIO SCLEROSIS.

37 deaths were referred to Arterio Sclerosis in 1934 as compared with 34 in the previous year. The Table explains itself :—

Periods.	Arterio-Sclerosis.				Total.	
	With a Cerebral Lesion		Without a Cerebral Lesion			
	Numbers.	Rates.	Numbers.	Rates.	Numbers.	Rates.
1921—1930	96	.11	76	.09	172	.20
1921—1925	22	.05	29	.07	51	.12
1926—1930	74	.17	47	.11	121	.28
1931	15	.17	5	.05	20	.22
1932	42	.47	18	.20	60	.67
1933	29	.32	5	.05	34	.38
1934	30	.33	7	.07	37	.41

From the mortality point of view the chief importance of these conditions is their association with Cerebral Hæmorrhage and other disturbances of the cerebral circulatory apparatus. Thus in 1934, 19 deaths were associated with Cerebral Hæmorrhage and 11 with other cerebral circulatory conditions.

The total number of deaths from all varieties of disease of the Circulatory apparatus was 250 (121 males and 129 females).

This group of diseases, therefore, was responsible for 25 per cent. of the deaths from all causes at all ages in 1934, and for 64.4 per cent. of the deaths from all causes at all ages over 70 years.

Thus diseases of the Circulatory System are identified very closely indeed with the Degeneration stage of life.

DEATHS FROM VIOLENCE.

The Death-rates from Violence (including Suicide) are set forth in the Table :—

Periods.	Death-rates per 1,000 living.		
	Males.	Females.	Persons.
1841—1850	.89	.25	.55
1851—1860	.88	.38	.61
1861—1870	.89	.26	.56
1871—1880	.77	.20	.47
1881—1890	.75	.23	.47
1891—1900	.78	.29	.52
1901—1910	.73	.29	.50
1911—1920	.74	.36	.54
1921—1930	.62	.29	.45
1921—1925	.59	.27	.42
1926—1930	.66	.32	.48
1931	.77	.23	.49
1932	.86	.27	.55
1933	.71	.40	.55
1934	.63	.29	.45

41 deaths (27 males and 14 females) were ascribed to Violence as compared with 49 in 1933, 49 in 1932, and 43 in 1931.

10 of the deaths (8 males and 2 females) were due to Suicide as compared with 13 in 1933, 14 in 1932, and 11 in 1931.

3 Suicides were due to Coal Gas Poisoning, and 2 to Drowning.

There were two deaths from Burns, 3 from Suffocation (an unusually high number of recent years), 3 from Drowning, 8 from Falls of various kinds, and 12 from Vehicular violence.

In the last group 7 were caused by Motor Vehicles, 2 by Motor-cycles, 2 by Pedal-cycles, and 1 by a Trolley 'Bus.

There have been 11 deaths in association with the Trolley 'Bus Service since 1923.

The Violence experience of the year corresponded very closely indeed with the average of 1921-1930.

PUERPERAL MORTALITY.

8 deaths were associated with Pregnancy and Childbirth in 1934 as compared with 5 in the previous year.

The Maternal mortality rate was equal to 61.9 per 1,000 births as compared with an average of 3.32 for the previous 5 years.

The rate recorded in 1934 was one of the highest in the 94 years of our records, but it has been surpassed on 9 occasions since 1841. The highest maternal mortality rate in Ipswich was 10.50 per 1,000 births in 1893.

The average maternal mortality rate for the 90 years 1841-1930 was equal to 4.060 per 1,000 births.

The average maternal mortality rate for the years 1931-1934 was 3.96 per 1,000 births.

The causes of maternal death in 1934 were Post Abortive Sepsis (2 deaths), Puerperal Septicæmia (4 deaths), other conditions (2 deaths).

Periods.	Puerperal Fever.	Puerperal Hæmorrhage.	Puerperal Convulsions	All other Conditions.	Total all causes.	
					No.	Rates.
1841—1850	1.81	.42	.53	1.71	42	4.47
1851—1860	1.00	.17	1.00	1.60	45	3.77
1861—1870	.90	.45	.52	1.51	45	3.38
1871—1880	1.53	.57	.25	1.72	64	4.09
1881—1890	2.16	.52	.41	1.41	77	4.50
1891—1900	1.57	.50	.22	1.92	75	4.21
1901—1910	.63	1.07	.63	1.44	70	3.72
1911—1920	1.39	.60	.97	1.33	71	4.29
1921—1930	2.20	.53	.66	.66	61	4.06
1921	1.74	—	—	1.74	6	3.46
1922	.63	—	1.89	.63	5	3.15
1923	1.29	—	—	.64	3	1.93
1924	1.39	—	.69	.69	4	2.79
1925	2.81	.70	—	—	5	3.52
1926	1.94	.65	1.94	1.30	9	5.84
1927	2.11	1.41	.71	.71	7	4.94
1928	4.91	2.81	.70	—	12	8.42
1929	2.08	—	.69	—	4	2.77
1930	3.40	—	—	.68	6	4.08
1931	1.45	—	—	.73	3	2.18
1932	—	.73	.73	2.20	5	3.66
1933	1.56	.78	.78	.78	5	3.92
1934	4.64	—	—	1.54	8	6.19

INFANT MORTALITY.

The Table gives the number of infant deaths and the Infant Mortality Rates since 1841.

DECENNIAL AND QUINQUENNIAL INFANT DEATHS.

Period.	No. of Deaths.			Infant Death Rates.						Female Infant Deaths per 1,000 Males.
				Males.		Females.		Infants.		
	Males.	Fmls.	Infants	Ips.	E.&W.	Ips.	E.&W.	Ips.	E.&W.	Ipswich.
1841—1850	913	743	1,656	190	167	161	137	176	153	812
1851—1860	1,122	931	2,053	184	168	159	139	172	154	829
1861—1870	1,141	982	2,123	167	168	151	139	159	154	861
1871—1880	1,369	1,024	2,393	171	163	134	134	152	149	748
1881—1890	1,327	1,004	2,331	153	155	118	128	136	142	756
1891—1900	1,582	1,181	2,763	174	168	135	138	155	153	746
1901—1910	1,322	1,044	2,366	138	140	113	114	126	128	789
1911—1920	889	615	1,504	105	112	76	89	91	100	691
1921—1930	496	343	839	65	81	46	63	56	72	691
1841—1845	361	296	657	176	162	143	133	160	148	815
1846—1850	552	447	999	201	172	175	142	188	157	809
1851—1855	550	453	1,003	188	172	158	141	173	156	823
1856—1860	572	478	1,050	180	166	160	137	171	152	835
1861—1865	567	492	1,059	171	166	156	136	164	151	867
1866—1870	574	490	1,064	164	170	146	142	155	157	855
1871—1875	647	487	1,134	169	167	133	138	152	153	752
1876—1880	722	537	1,259	172	159	135	130	154	145	744
1881—1885	647	496	1,143	152	152	117	125	134	139	766
1886—1890	680	508	1,188	155	159	119	131	138	145	747
1891—1895	763	559	1,322	171	165	128	135	150	151	732
1896—1900	819	622	1,441	177	170	141	141	160	156	759
1901—1905	763	605	1,368	155	151	128	124	142	138	792
1906—1910	559	439	998	119	129	97	105	109	117	785
1911—1915	525	365	890	115	121	85	97	101	110	695
1916—1920	364	250	614	92	101	65	79	78	90	686
1921—1925	274	197	471	71	86	50	66	61	76	718
1926—1930	222	146	368	58	77	41	59	50	68	657
1911	99	82	181	107	142	96	117	102	130	891
1912	120	75	195	135	106	87	84	112	95	625
1913	109	65	174	119	120	74	96	96	108	596
1914	101	87	188	108	116	100	93	104	105	861
1915	96	56	152	117	123	70	96	94	110	583
1916	78	57	135	90	102	71	80	81	91	730
1917	71	48	119	107	108	73	85	90	96	760
1918	66	49	115	94	108	71	86	83	97	742
1919	59	41	100	89	100	58	78	70	89	694
1920	90	55	145	89	90	55	69	72	80	611
1921	70	58	128	83	93	65	72	74	83	828
1922	38	47	85	49	87	58	66	54	77	1236
1923	52	27	79	66	78	35	60	51	69	519
1924	49	26	75	67	85	37	65	52	75	530
1925	65	39	104	93	84	54	66	73	75	600
1926	46	24	70	59	79	31	61	45	70	521
1927	51	41	92	69	79	59	60	65	70	803
1928	46	23	69	59	74	35	56	48	65	500
1929	44	32	76	60	83	44	65	52	74	727
1930	35	26	61	45	68	37	51	41	60	742
1931	46	36	82	65	75	53	57	59	66	782
1932	22	40	62	32	73	57	56	45	65	1818
1933	30	29	59	45	72	47	55	46	64	966
1934	33	27	60	50	—	42	—	46	59	818

INFANT MORTALITY TABLE, 1934.

	Cause of Death.	DAYS. 1			2			3			4			5			6			7		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
INFECTIOUS DISEASES.	Pertussis ...																					
	Diphtheria ...																					
	Diarrhoea ...																					
OTHER INFECTIONS.	Influenza ...																					
	Erysipelas ...																					
	Syphilis ...																					
BLOOD.	Leukaemia ...		1	1																		
RESPIRATORY SYSTEM.	Bronchitis ...																					
	Pneumonia ...																					
DIGESTIVE SYSTEM.	Tonsillitis ...																					
	Intussusception																					
MALFORMATIONS	Congenital Malformations							1	1	2												
EARLY INFANCY.	Atrophy, Debility and Marasmus	1		1																		
	Prematurity ...	5	6	11																		
	O.D. Early Infancy		3	3	1		1														1	1
EXTERNAL CAUSES.	Murder ...																			1		1
	Suffocation ...				1		1															
TOTAL		6	10	16	2	—	2	1	1	2	—	—	—	—	—	—	—	—	—	1	1	2

	Cause of Death.	WEEKS. 1			2			3			4		
		M	F	T	M	F	T	M	F	T	M	F	T
INFECTIOUS DISEASES.	Pertussis ...												
	Diphtheria ...												
	Diarrhoea ...										1		1
OTHER INFECTIONS.	Influenza ...				1		1						
	Erysipelas ...										2		2
	Syphilis ...											1	1
BLOOD.	Leukaemia ...		1	1									
RESPIRATORY SYSTEM.	Bronchitis ...												
	Pneumonia ...												
DIGESTIVE SYSTEM.	Tonsillitis ...												
	Intussusception												
MALFORMATIONS	Congenital Malformations	1	1	2	2		2						
EARLY INFANCY.	Atrophy, Debility and Marasmus	1		1	1		1						
	Prematurity ...	5	6	11		2	2				1	2	3
	O.D. Early Infancy	1	4	5									
EXTERNAL CAUSES.	Murder ...	1		1									
	Suffocation ...	1		1									
TOTAL		10	12	22	4	2	6	—	—	—	4	3	7

	Cause of Death.	MONTHS. 1			2			3			4			5			6			7			8			9			10			11			12			—1 year.		
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
INFECTIOUS DISEASES.	Pertussis ...										1		1				1		1											1	1	1		1				3	1	4
	Diphtheria ...													1		1																						1	—	1
	Diarrhoea ...	1		1								1	1				1		1								1	1										2	2	4
OTHER INFECTIONS.	Influenza ...	1		1																																		1	—	1
	Erysipelas ...	2		2							1		1																									3	—	3
	Syphilis ...		1	1																																		—	1	1
BLOOD.	Leukaemia ...		1	1																																		—	1	1
RESPIRATORY SYSTEM.	Bronchitis ...																																1	1				—	1	1
	Pneumonia ...					1	1	1		1																				1	1				1		1	2	2	4
DIGESTIVE SYSTEM.	Tonsillitis ...													1		1																						1	—	1
	Intussusception																									1		1										1	—	1
MALFORMATIONS	Congenital Malformations	3	1	4																																		3	1	4
EARLY INFANCY.	Atrophy, Debility and Marasmus	2		2	3	1	4	1	1	2		1	1																									6	3	9
	Prematurity ...	6	10	16																																		6	10	16
	O.D. Early Infancy	1	4	5																																		1	4	5
EXTERNAL CAUSES.	Murder ...	1		1																																		1	—	1
	Suffocation ...	1		1		1	1				1		1																									2	1	3
TOTAL		18	17	35	3	3	6	2	1	3	3	2	5	2	—	2	2	—	2	—	—	—	—	—	—	1	1	2	—	2	2	1	1	2	1	—	1	33	27	60

The rate for the year 1934 has thus been bettered on three occasions in 94 years, viz., 41 in 1930 and 45 in 1926 and 1932. It has been equalled once, viz., in 1933.

The average of the period 1931-1934 was fractionally lower than that of 1926-1930, which was the lowest recorded.

The number of infant deaths was the lowest recorded since 1841, with the exception of 1933.

The Ipswich Infant Mortality Rate remains consistently below the rate for the country as a whole.

I give the usual Table showing the age distribution and causes of Infant Death for the year 1934.

See Table facing this page.

The principal causes of Infant Mortality in this area remain fairly constant.

The group including Prematurity, Atrophy and the other diseases peculiar to Early Infancy heads the list as always.

The fact that there were 4 deaths from Diarrhœa and 4 from Whooping Cough brings the Zymotic Death-rate into second place, followed by diseases of the Respiratory System and the group of other Infectious Diseases. These facts are brought out in this Table :—

Causes of Death.	1891—1895.	1896—1900.	1901—1905.	1906—1910.	1911—1915.	1916—1920.	1921—1925.	1926—1930.	1931.	1932.	1933.	1934.
incipal Zymotics ...	33.5	52.3	26.2	20.9	19.7	8.6	8.0	5.7	5.83	2.20	.78	6.97
er Infectious Diseases...	4.4	2.4	1.7	4.2	4.2	3.6	2.4	1.5	2.18	1.46	1.56	3.87
erculosis	3.8	3.8	3.0	3.3	2.3	2.9	.8	.8	.72	1.46	.78	—
er General Diseases ...	.8	.2	.5	.6	.6	.5	.5	.5	.72	2.93	1.56	.77
ases of Nervous System	12.3	10.6	10.2	7.8	5.8	4.9	3.5	1.5	2.18	—	.78	—
,, Circulatory ,,	.1	—	.1	—	.1	.1	—	.1	—	—	—	—
,, Respiratory ,,	26.1	24.1	22.2	16.0	18.4	15.3	11.5	8.7	12.40	11.73	7.84	3.87
,, Digestive ,,	1.1	1.3	.2	1.7	2.2	2.3	1.2	.9	—	.73	.78	1.54
,, Genito-Urinary System	.1	.2	.3	.3	.1	.2	—	.1	—	—	—	—
,, Skin & Cellular Tissue	.8	1.4	1.3	.4	.7	.2	.4	.1	—	.73	—	—
genital Malformations	2.8	1.7	2.6	3.1	4.7	4.0	4.6	5.4	6.56	8.07	9.41	3.09
naturity, Atrophy, etc.	61.5	56.8	68.6	46.8	40.3	33.0	26.1	23.4	27.71	14.67	21.19	23.23
lence	1.5	2.9	3.0	2.1	1.9	2.7	1.9	.8	1.45	1.46	.78	3.09
Others	1.5	2.1	.7	1.2	.6	.3	—	.4	—	—	.78	—
TOTAL ...	150	160	142	109	101	78	61	50	59	45	46	46

The age distribution of the Infant Death-rates in comparison with those since 1891-1895 is shown in the following Table:—

AGE DISTRIBUTION OF THE INFANT DEATH-RATES UNDER 1 YEAR.

Periods.	—1 Week.			—1 Month.			—3 Months.			3—6 Months.			6—9 Months.			9—12 Months.			—1 Year.		
	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.	M.	F.	I.
1891—1900	27.60	20.50	**24.12**	47.36	35.39	**41.49**	84.45	63.92	**74.38**	37.86	28.64	**33.34**	28.48	24.40	**26.48**	23.84	18.32	**21.13**	174	135	**155**
1901—1910	30.46	22.68	**26.65**	51.11	39.07	**45.21**	79.49	61.55	**70.69**	23.88	19.75	**21.86**	19.92	15.95	**17.98**	14.60	16.06	**15.32**	138	113	**126**
1911—1920	26.07	19.87	**23.03**	41.25	31.35	**36.40**	62.35	45.79	**54.23**	15.52	11.11	**13.36**	15.17	10.44	**12.75**	12.32	8.16	**10.58**	105	76	**91**
1921—1930	24.46	15.51	**20.06**	33.88	23.52	**28.73**	46.69	30.96	**38.93**	7.23	5.27	**6.26**	5.65	5.00	**5.33**	5.52	5.28	**5.40**	65	46	**56**
1891—1895	29.47	21.06	**25.17**	50.00	35.72	**42.92**	88.43	61.07	**74.92**	35.32	27.19	**30.51**	26.32	20.28	**23.33**	21.60	20.28	**20.95**	171	128	**150**
1896—1900	25.80	20.04	**23.00**	44.88	35.08	**40.11**	80.66	66.74	**73.88**	40.33	30.06	**35.33**	30.57	28.47	**29.50**	26.01	16.40	**21.44**	177	141	**160**
1901—1905	30.20	27.54	**28.90**	54.49	45.56	**50.11**	85.31	70.56	**78.09**	30.20	22.03	**26.20**	23.06	17.37	**20.27**	17.14	18.22	**17.67**	155	128	**142**
1906—1910	30.72	17.58	**24.29**	47.57	32.27	**40.08**	73.39	52.08	**62.96**	17.28	17.36	**17.32**	16.64	14.46	**15.57**	11.94	13.80	**12.85**	119	97	**109**
1911—1915	30.12	22.00	**26.16**	45.52	33.48	**39.74**	69.40	48.00	**58.95**	16.29	13.81	**15.08**	18.07	12.17	**15.19**	13.39	11.47	**12.45**	117	85	**101**
1916—1920	21.49	17.48	**19.52**	36.41	28.97	**32.74**	54.36	43.33	**48.96**	14.66	8.09	**11.43**	11.88	8.09	**10.01**	11.12	5.74	**8.47**	92	65	**78**
1921—1925	25.33	17.25	**21.26**	35.24	25.75	**30.47**	52.22	34.00	**43.05**	7.05	5.92	**6.48**	6.01	5.40	**5.70**	6.26	5.40	**5.83**	71	50	**61**
1926—1930	23.58	13.66	**18.80**	34.18	21.06	**26.90**	41.08	27.61	**34.58**	7.42	4.54	**6.03**	5.30	4.54	**4.94**	5.03	4.83	**4.94**	58	41	**50**
1931	25.64	14.94	**20.42**	38.46	25.41	**32.09**	51.28	31.38	**41.57**	7.12	8.96	**8.02**	2.84	10.46	**6.56**	4.27	3.00	**3.64**	65	53	**59**
1932	11.92	14.45	**13.20**	17.88	27.45	**22.74**	25.33	39.01	**32.28**	2.98	1.44	**2.20**	2.98	11.56	**7.33**	1.49	5.78	**3.66**	32	57	**45**
1933	13.63	21.17	**17.26**	24.24	29.31	**26.68**	30.30	37.45	**33.75**	3.03	1.62	**2.35**	1.51	6.51	**3.92**	10.60	1.62	**6.27**	45	47	**46**
1934	15.22	18.92	**17.04**	27.39	26.81	**27.11**	35.01	33.12	**34.08**	10.65	3.15	**6.92**	1.52	1.57	**1.54**	3.04	4.73	**3.87**	50	42	**46**

The Table shows that the average mortalities at all ages under 1 year are still on the decline, though naturally at a slower rate.

The preponderance of the mortality under 3 months of age at the present day is very striking. In fact, in 1934 practically three-fourths of the Infant Death-rate was made up by the mortality at this age period. Two-thirds of the deaths under three months of age belonged to the Atrophy, Prematurity group.

Attention is directed once more to the act of Birth itself in relation to the mortality under one month and very particularly that under one week.

The illegitimate Death-rate was low in 1934. A peculiar circumstance was that there were no deaths of illegitimate infants in Ipswich during the year, but three transfers of deaths of illegitimate infants, whose mothers belonged to Ipswich, were referred from districts other than Ipswich.

STILLBIRTHS.

I insert the usual Table about Stillbirths. There was an increase in 1934.

Year	Males		Females		Infants	
	No.	%	No.	%	No.	%
1927	18	4.5	9	2.6	27	3.6
1928	38	4.8	23	3.4	61	4.1
1929	40	5.3	29	3.9	69	4.6
1930	42	5.2	26	3.6	68	4.5
1931	27	3.7	23	3.3	50	3.5
1932	30	4.2	16	2.2	46	3.2
1933	26	3.7	25	3.9	51	3.8
1934	28	4.1	30	4.5	58	4.3

The Ante-Natal (Stillbirths) and Infant Mortality Rates are shown in the Table, along with the Post-Natal Infant Mortality Rates.

Year	Death-rates of Infants (potential lives).								
	Males			Females			Infants		
	Ante-Natal	Post-Natal	Total	Ante-Natal	Post-Natal	Total	Ante-Natal	Post-Natal	Total
1928	48	59	106	34	35	68	41	48	89
1929	53	60	112	39	44	83	46	52	98
1930	52	45	96	36	37	73	45	41	85
1931	37	65	101	33	53	86	35	59	94
1932	42	32	74	22	57	79	32	45	76
1933	36	45	81	39	47	84	38	46	83
1934	41	50	91	45	42	87	43	46	89

The Ante-Natal Rates are shown in terms of potential lives, the Post-Natal of live births and the combined of potential lives.

The inclusion of the Ante-Natal deaths just about doubles the Infant Mortality Rate.

AREA MORTALITIES.

THE NEW ESTATES, THE ROPE WALK INSANITARY AREA, THE BOROUGH.

In my Report for 1933 attention was drawn to certain features of the Mortality experience of the new Housing Estates within the Borough.

In this Report these experiences are examined in greater detail and are contrasted with the corresponding experiences of the largest insanitary area in the Borough, and with those of the Borough as a whole as a further check.

The housing conditions of the New Estates are in vivid contrast with those of the Rope Walk insanitary area.

In the first place the new estates are built upon a soil completely unpolluted by human habitation, partly heathland and partly agricultural land. In the Rope Walk area, on the other hand, the site has been polluted for a century or more by soakage from Privy Middens, unpaved streets and yards, and the filthy habits of the inhabitants.

In the second place, the new estates have a house density of about 12 to the acre, with wide streets and reasonable garden space, the result of which is to render possible free circulation of air in and round each house and adequate exposure to sunlight.

In the Rope Walk the housing density is about 50 to the acre, on the average, the result being narrow streets, small yard spaces and gross interference with air circulation and the entry of sunlight.

In the third place the houses in the new estates conform to modern conceptions of healthy house building, and are provided with proper sanitary arrangements of all sorts, including baths, and a proper pantry for the storage of food.

In the Rope Walk the houses represent the housing ideas of 100 years ago, with sanitary arrangements which are the result of partial reconditioning from the unspeakable foulness of the old conditions, but which do not approach modern standards. There are no baths, a deficiency which is a direct menace to the health of the inhabitants.

The food storage arrangements are crude in the extreme, consisting of unlighted and unventilated cupboards usually under the stairs and utterly unsuited for the storage of food. This is another definite and direct menace to the health of the inhabitants.

Such being some of the main sanitary features of the new and old areas, the next feature demanding attention is the populations living

under the different conditions. For this purpose we take the figures of the 1931 Census :—

Population.	Males.	Females.	Persons
Whole Borough ...	41,285	46,217	87,502
New Areas ...	4,168	4,169	8,337
Rope Walk ...	1,966	1,893	3,589

The Table shows that the sex distribution of the areas differs materially from that of the town as a whole. In the town there are 1,119 females to every 1,000 males, in the new areas the sexes are exactly equal, but in the Rope Walk there is an actual male excess, the female ratio being 963 per 1,000 males.

In view of the fact that at all ages and practically every age period the female mortality experience is below that of the male, it follows that the sex differences in these areas cause variations in the death-rates, not only between those of the town as a whole, but of the areas themselves. The Table illustrates this point.

Death-rates per million living :—

1921—1930.	Males.	Females.	Female deaths per 1,000 males.
Town ...	11,766	10,882	924
New Areas ...	7,067	4,856	687
Rope Walk ...	14,786	13,589	919

If the sex death-rates of the town be taken as 1,000 in each case, then the comparative ratios of the new areas and the Rope Walk are as follows :—

1921—1930.	Males.	Females.
Town	1,000	1,000
New Areas ...	600	446
Rope Walk ...	1,256	1,248

This shows that the same number of persons providing 1,000 deaths in the case of the town gave, in the case of the new areas, 600 male deaths and 446 female deaths, and 1,256 male and 1,248 female deaths in the Rope Walk.

Thus the male mortality ratio of the Rope Walk was about double that of the new areas, and the female almost treble.

The age distribution of the population has an important influence upon the death-rate.

I give a Table showing the proportional age distribution of the populations of the whole Borough, the new areas, and the Rope Walk :—

Ages	Borough	New Estates	Rope Walk
— 5	79	173	108
— 10	83	172	99
— 15	81	114	91
— 20	86	71	96
— 25	85	57	86
— 30	82	76	73
— 35	74	101	62
— 40	67	89	54
— 45	66	61	58
— 50	63	36	63
— 55	59	22	57
— 60	52	13	46
— 65	43	7	42
— 70	33	3	30
— 75	23	2	17
— 80	14	2	13
— 85	7	1	4
+ 85	3	—	1
All Ages	1,000	1,000	1,000

This Table shows at a glance that it is impossible for the death-rates at all ages to be the same in these different areas.

Comparing the age distribution of the population of the new areas with that of the whole town, it is clear that in those areas there is a very large proportion of young people, with a low death-rate and a small proportion of old persons with a high death-rate. These areas have not been occupied for a sufficient length of time to permit of the establishment of an average population.

The Rope Walk population, on the other hand, shows an excess of young people as compared with the town, but nothing like the excess of the new areas, and a very similar proportion of persons at the higher ages to that of the whole of the town.

An understanding of the implications of this Table is vital to our whole inquiry.

I now give a Table showing the age distribution of the death-rates of persons for the Town, the new areas, and the Rope Walk, together with the comparative mortality figures in each case :—

Age Periods	Borough		New Estates		Rope Walk	
	D.R.	C.M.F.	D.R.	C.M.F	D.R.	C.M.F.
— 5	17.207	1,000	16.118	936	31.160	1,810
— 10	2.150	1,000	2.037	947	1.443	671
— 15	1.314	1,000	.605	460	2.584	1,966
— 20	1.977	1,000	2.705	1,368	2.873	1,453
— 25	2.913	1,000	3.061	1,050	3.353	1,151
— 30	3.034	1,000	3.044	1,003	3.746	1,234
— 35	3.597	1,000	3.901	1,084	7.100	1,973
— 40	4.159	1,000	3.640	875	9.058	2,177
— 45	5.931	1,000	5.681	957	9.364	1,578
— 50	7.850	1,000	5.177	658	11.909	1,517
— 55	10.724	1,000	9.523	888	13.949	1,300
— 60	14.403	1,000	9.823	682	18.150	1,260
— 65	21.854	1,000	13.793	631	24.844	1,136
— 70	35.340	1,000	50.724	1,435	48.330	1,367
— 75	59.050	1,000	78.651	1,331	77.777	1,317
— 80	93.126	1,000	61.224	657	73.171	785
— 85	148.959	1,000	178.571	1,198	286.624	1,924
+ 85	264.063	1,000	222.222	841	593.750	2,248
All Ages	11.299	1,000	5.964	527	14.193	1,256

D.R. = Death-Rate. C.M.F. = Comparative mortality figure.

This shows the case very clearly indeed. At all ages the death-rate in the new areas is a little more than one-half of that of the town, whilst the rate in the Rope Walk considerably exceeds it.

The death-rate in the Rope Walk is nearly two and a half times higher than that of the new areas.

The individual age periods show some extraordinary contrasts. Thus, under 5 years of age the experience of the new estates is appreciably better than that of the town, whereas the Rope Walk mortality is almost twice as high as that of the new estates.

At the 5-10 age period the new estates show a definitely lower mortality experience (very similar in degree to the -5 age period) than the town, whilst in the Rope Walk the rate strangely enough is lower than in the town and the new estates.

At the 10-15 age period the Rope Walk mortality is nearly double that of the town and more than four times as high as in the new areas.

Between 30 and 40 years of age the Rope Walk mortality is double the town and more than double the new estates.

At the other extreme of life the experience of the new estates corresponds closely with that of the town, but in the Rope Walk area the comparative mortality is excessive.

At the age 55-60 the Rope Walk mortality is almost double that of the new estates, and so on.

We are now in a position to pursue our enquiry into the causes of death at all ages in these areas as compared with the Borough. In all cases the figures used are the death-rates per million living for the decennium 1921-1930.

The principal group causing death in the Borough in the period in question was that of the RESPIRATORY DISEASES. The rates are set forth thus :—

Disease.	Borough.	New Estates.	Rope Walk.
Pneumonia	696	662	1,361
Bronchitis	945	229	1,720
All others	149	76	215
Total Respiratory Death Rates	1,790	967	3,296

This Table is well worthy of close consideration. The mortality from Pneumonia in the new estates is less than that of the town, but in the Rope Walk the mortality is double that of the new estates and nearly double that of the town.

Bronchitis caused a mortality in the new estates about one quarter of that in the town as a whole, whilst in the Rope Walk the death-rate was nearly eight times that in the new estates.

The other Respiratory diseases caused a mortality in the new estates about one-half that in the town, whereas in the Rope Walk it was about three times that in the new estates.

Thus we establish the position that there is in the Rope Walk area a heavy excess of mortality from Respiratory Diseases as compared with the town as a whole, and a very great excess mortality indeed as compared with the new estates.

In seeking an explanation of this discrepancy we must bear in mind the difference in the sanitary conditions of the Rope Walk and the new areas in the first instance. Slum conditions are invariably associated with a high Respiratory mortality, and it is pregnant with suggestion that the populations of the new estates are largely composed of families who have been specially selected as suitable for the estates because of the size of the family, and the conditions under which they were living before their transfer.

In the case of Pneumonia the disease causes the greatest number of its fatalities amongst the younger members of the community. Hence it is not surprising, considering the age distribution of the population

already shown, that the death-rates from Pneumonia at all ages should show little difference when the new estates are compared with the town as a whole, but this consideration simply throws additional stress upon the experience of the Rope Walk which has a population age incidence justifying the expectation of a higher Pneumonia mortality than that of the town, but of nothing like the extent of the recorded excess. In my opinion the Rope Walk excess is related to the Rope Walk.

In the case of Bronchitis the disease is fatal chiefly to elderly people. Therefore, in mortality statistics at all ages, the population having the higher proportion of old people should have the higher Bronchitis death-rate purely automatically. This explains why the Bronchitis death-rate of the new estates with few old people is so low, but it does not explain why the Bronchitis death-rate of the Rope Walk is so high as compared with the town as a whole, because, as we have shown, the age distribution of the Rope Walk population and that of the town is much the same at the ages at which Bronchitis death-rate matters.

Here again it is the local conditions of the Rope Walk that appear to be the chief factor.

The second most frequent cause of death is CANCER.

The Cancer death-rates per million living are shown thus :—

	Borough.	New Estates.	Rope Walk.
Cancer Death-Rates	1,465	305	1,338

Thus the Cancer death-rate of the new estates was about one-fifth of that of the Borough as a whole.

The age distribution of the population concerned with these figures gives, I think, the true explanation of the differences.

The population of the new estates is predominantly of an age not prone to Cancer, which is a disease of middle and advanced life. It is, therefore, in accordance with expectation that the New Estates rate is what it is.

In the case of the Rope Walk area the figure is again quite within expectation, as we have shown that in this area also there is a higher proportion of young people than in the town as a whole, which tends to lower the Cancer death-rate at all ages.

There is no evidence in Ipswich of Cancer houses, and there is no suggestion at the moment that the incidence of Cancer is related to environmental conditions of life.

HEART DISEASES account for the third group.

The Table is as follows :—

	Borough.	New Estates.	Rope Walk.
Heart Disease Death-Rates ...	1,389	280	1,146

As a preliminary to the consideration of this Table, about 93 per cent. of all the deaths in this group are over 50 years of age.

From this point of view the considerations advanced in the case of Cancer apply with equal force. The younger the population the lower will be the Heart Disease death-rate, because Myocardial Degenerations now constitute the great bulk of the group, and these are pre-eminently conditions associated with the degeneration stage of life.

It is therefore not surprising that the Heart Disease rate for the new estates is low. It is in strict accordance with expectation from the age distribution of the new estates population.

The same consideration applies to the Rope Walk, where the larger proportion of young people brings down the rate at all ages as compared with the Borough as a whole.

There is no evidence that the degeneration types of Heart Disease are directly associated with environmental conditions of life.

ARTERIO SCLEROSIS.—The conditions comprised in the group are amongst the most characteristic of the degenerations of age and they exhibit their fatalities amongst persons over 50 years of age. Their expectation increases as the age of the population increases.

It is therefore in accordance with the age distribution of the populations of the Town, the new areas and the Rope Walk, that the mortalities from this group of degenerations should be respectively 207, 127 and 191 per million living.

There is no evidence that environmental conditions are related to this group.

The fifth group includes all DISEASES OF THE NERVOUS SYSTEM.

The case is set forth thus :—

	Borough.	New Estates.	Rope Walk.
Diseases of Nervous System Death-Rates ...	1,220	331	1,385

The chief cause of death from diseases of the Nervous System is Cerebral Hæmorrhage. This is a disease of the middle and advanced

periods of life, another of the degenerative processes of the ageing circluatory system of the body.

Like Cancer and Heart Disease, it is closely connected with the age distribution of the population.

It is therefore in accordance with expectation that the young population of the new areas should suffer least from this group of Nervous Diseases with a mortality experience far below that of the Borough.

Thus there were only 13 deaths ascribed to the group in the New Estates as compared with 58 in the Rope Walk for the same period. In the Rope Walk the chief contributors to the group were Cerebral Hæmorrhage, Cerebral Thrombosis, and Hemiplegia, which between them accounted for 37 deaths out of a total of 58. This was equal to a death-rate of 884 per million living, as compared with 127 per million in the New Estates, and 797 per million in the town as a whole.

There is no evidence that these degenerative diseases of the circulatory apparatus of the Nervous System are associated with conditions of environment.

The sixth group includes all forms of TUBERCULOSIS.

Tuberculosis Death-Rates.	Borough.	New Estates.	Rope Walk.
Pulmonary T.B.	837	739	1,481
All others T.B. ...	168	178	358
All T.B. ...	1,008	917	1,839

From this it appears that the incidence of fatal Tuberculosis was lower by about 10 per cent. in the New Estates than in the town, whereas the mortality experience of the Rope Walk was double that of the New Estates, both from the Pulmonary and the non-Pulmonary varieties.

As compared with the town there was an excess mortality in the Rope Walk of over 80 per cent.

These are the crude facts.

The figures for the New Estates do not give a true picture of the case because of the policy of the Housing Committee of moving families with cases of Tuberculosis in their midst from unsatisfactory housing conditions elsewhere to the Estates. The proportion of Tuberculous subjects in the New Estates is therefore higher than in the town as a whole, although the death-rate is lower.

Tuberculosis is a disease which has been particularly associated with conditions of slum life, and rightly so because the two chief crimes of slumdom are overcrowding of houses on area and overcrowding of

persons in houses. Too much stress is being laid at the moment upon the actual conditions of houses, and too little importance is attached to the equally important considerations of house and population density. In considering the relationship between Tuberculosis and housing, I would point out that housing is not, by any means, the whole question of the slum, albeit a very important one.

The true solution of the problem of Tuberculosis lies less in the provision of Sanatoria or Tuberculosis Colonies than in the total abolition of all slum conditions, and the housing of the whole of the people under conditions ensuring the rigid prevention of overcrowding of houses on area and of overcrowding of people in houses.

SENILITY requires only passing mention.

	Borough.	New Estates.	Rope Walk.
Senility	788	76	669

The age distribution of the populations concerned supplies the answer to this Table. There are few old people in the New Estates.

The eighth group is composed of the deaths under 1 year of age from the DISEASES PECULIAR TO EARLY INFANCY, viz., Congenital Malformations, Prematurity, Atrophy, Debility and Marasmus, and the other diseases peculiar to early infancy.

For the purposes of this part of our enquiry the mortality-rates are expressed in terms per million living, so as to be comparable with the other groups in the series.

The following Table results :—

Death-Rates per Million Living.			
	Borough.	New Estates.	Rope Walk.
Diseases of Early Infancy ...	545	1,145	930

Thus the group was highest in the New Estates, not quite so high in the Rope Walk, and very much the lowest in the town as a whole.

This part is best considered under the heading of Infant Mortality, and *the above figures should not be used.*

The remaining groups call for no special note, with the exception of Rheumatism, which shows a mortality experience in the Rope Walk double that of the whole town and between four and five times higher than on the New Estates. Age distribution accounts for a good deal of the discrepancy with the New Estates, but it does not explain the difference with the town as a whole.

INFANT MORTALITY.

1921-1930.

Infant mortality may be regarded as one of the most sensitive indices of the effects of conditions of life, environmental and otherwise, in our possession.

Infant Mortalities are expressed as ratios per 1,000 births.

I give 4 Tables which will illustrate this point.

TABLE I.

	Borough.	New Estates.	Rope Walk.
Infant Death Rates ...	56	61	88

Thus the infant population of the whole Borough showed a lower rate of mortality than the infants living under selected conditions in the New Estates and a far lower rate than those living in the slum area. The latter is in accordance with expectation, but the former is not. It is true that the difference in the New Estates is small as compared with the town, but one would have expected any difference to be the other way about.

In the case of the Rope Walk the excessive mortality under 1 year must be linked up closely with the high mortality at all ages under 5 years in that locality, which contrasts very unfavourably with the low rate under 5 years in the New Estates. As this is a feature of considerable importance the comparative mortality figures under 5 years for the three areas are given for reference.

DEATH-RATES UNDER 5 YEARS OF AGE. COMPARATIVE MORTALITY FIGURES.

Borough.	New Estates.	Rope Walk.
1,000	936	1,810

This indicates that the mortality experience between 1 and 5 years in the New Estates was such as to counterbalance the excess in the Mortality under 1 year, and leave a substantial balance in their favour.

On the other hand, the experience of the Rope Walk was the reverse. In this case there was not only excessive mortality under 1 year, but at all ages up to 5.

These considerations should be linked up with the facts shown in Table IV. of this series.

The chief causes of the Infant death-rates are shown in Tables II. and III. Table III. is simply a further elaboration of Table II.

TABLE II.

Principal Causes	Borough	New Estates	Rope Walk
Prematurity, Marasmus, etc. ...	24.7	26.9	31.7
Pneumonia, Bronchitis, etc ...	11.1	12.6	29.9
7 principal Zymotic Diseases ...	6.8	8.2	7.2
Congenital Malformation ...	5.0	6.7	3.6
Diseases of the Nervous System	2.5	.5	3.6
Other Infections	1.9	—	3.6
Diseases of the Digestive System	1.1	.5	2.7
Tuberculosis	.8	1.6	.9

Thus the principal causes of Death are the same, whatever the area, the only variation being one of degree.

Prematurity, Marasmus, etc., is the chief cause of death in all three areas, but lowest in the whole Borough, higher in the New Estates and highest in the Rope Walk.

Respiratory diseases come second, the mortality in the New Estates being rather higher than in the Borough. On the other hand, the Respiratory mortality of infancy in the Rope Walk area was far in excess of that of the Borough, almost three times as high in fact. In my opinion this is a very strong argument indeed against the Rope Walk. Excessive Respiratory mortality is the Hall Mark of the slum.

Zymotic mortality was highest in the New Estates and lowest in the Borough.

Congenital Malformations caused their highest mortality in the New Estates and their lowest in the Rope Walk.

Diseases of the Nervous System and other Infections were highest in the Rope Walk.

Diseases of the Digestive System were most fatal in the Rope Walk.

Tuberculosis was most fatal in the New Estates, but it is probable that this is artificial for reasons stated in an earlier part of this Report.

TABLE III.

Diseases	Borough	New Estates	Rope Walk
Prematurity	13.72	15.73	14.52
Atrophy, Marasmus	9.66	6.74	13.61
Congenital Malformations ...	5.06	6.74	3.62
Other Diseases of Early Infancy	1.40	4.49	3.62
Group	29.87	33.70	35.39

This Table examines the Infant Mortality from Prematurity, Marasmus, Congenital Malformations and the other diseases of Early Infancy more closely.

It is revealed that the death-rate from Prematurity was highest in the New Estates and lowest in the Borough.

The death-rate from Marasmus was lowest in the New Estates and by far the highest in the Rope Walk area.

This has a significance indicating the relationship between malnutrition and the conditions of life in the Rope Walk area.

Congenital Malformations were highest in the New Estates and lowest in the Rope Walk.

The other diseases of Early Infancy were highest in the New Estates and lowest in the Rope Walk.

Thus, with the exception of Marasmus, the New Estates showed a higher mortality from the group than the Rope Walk.

Lastly we examine the age distribution of the Infant death-rates at six age periods under 1 year.

TABLE IV.

	Under 1 week	Under 1 month	Under 3 months	3–6 months	6–9 months	9–12 months	Under 1 year
Borough ...	20.06	28.73	38.93	6.26	5.33	5.40	56
New Estates	23.03	32.91	42.23	9.32	5.48	4.93	61
Rope Walk	20.87	32.66	49.00	14.51	11.79	12.70	88

This emphasises the facts brought to light already. Particular emphasis is laid on the fact that up to 9 months, the Mortality experience of the New Estates is in excess of the corresponding figures for the Borough. From 9 months to 5 years of age the mortality of the New Estates is below that of the Borough.

In the Rope Walk, on the other hand, the mortality during the first week of life is about the same as the Borough.

Under 1 month it has risen to almost the same height as the New Estates.

Under three months of age the Rope Walk mortality is markedly in excess of the New Estates, and it continues to diverge more and more as age increases. We have seen that this feature persists during the whole period under 5 years of age.

In my opinion, this age distribution of the mortality is a strong indictment of the Rope Walk area.

The chief causes of the excessive Infant Mortality in the Rope Walk area, over 6 months of age, were Pneumonia, Bronchitis, Whooping Cough and Diarrhœa, diseases always associated with slum conditions, especially in their fatal form.

The essence of the slum problem is rent. The poorest people are forced by their poverty to house themselves wherever rents are lowest, because it is essential that they should conserve the greatest possible proportion of their meagre earnings for the provision of food. Clothing is of necessity cut to the lowest possible point, and it is of minor importance as compared with food and housing.

I deliberately place food first, because, although it may be true that man does not live by food alone, it is equally certain that he does not live on anything else.

The conditions of life at any period demand more than a minimum subsistence allowance of food if the individual is to maintain full working capacity and keep disease at bay.

If, in addition to insufficiency of food, the person is exposed to air and sunshine hunger, and is not provided with proper facilities for keeping his body clean, his capacity to resist disease must be lowered.

I have not referred to quality of food for the simple reason that the people who cannot afford to buy enough food must be content with what quality their means enable them to acquire. Obviously, it cannot be of the best. Here is another disability.

In passing, reference must be made to the question of cooking, knowledge of which is so essential to healthy living, and so heartily despised. This goes hand in hand with lack of acquaintance with food values.

The whole of this goes to indicate that in dealing with the question of the effects of slum conditions of life, we must not commit the crude error of blaming the whole thing upon the house. Nutrition, habits of life, as well as other conditions, all play their part in the production of the final result, which is a C3 population, with a corresponding death-rate.

No house should be considered to be in all respects reasonably fit for human habitation without a bath and a properly constructed pantry

for the storage of food, and in all respects the actual construction of the house should at least fulfil modern standards.

But all this will not overcome the difficulty of the maladjustment of earnings to needs, and as long as this exists, however sanitary the conditions of life may be made, there will still exist the basic question of the adequacy of the food supply, upon which ultimately rests the power of the individual to resist the attacks of disease and maintain a proper standard of health.

NOTIFICATIONS OF INFECTIOUS DISEASE.

The following Table gives the numbers of notifications of Infectious Disease in 1934.

Diseases Notified	1921—1925.		1926—1930.		1932.		1933.		1934.	
	Nos.	Rate.	Nos.	Rate.	Nos.	Rate.	Nos.	Rate.	Nos.	Rate.
Chicken Pox ...	2182	5.37	3596	8.43	651	7.38	336	3.77	386	4.28
Diphtheria ...	736	1.81	472	1.10	178	2.02	135	1.51	90	.99
Scarlet Fever ...	581	1.43	983	2.29	346	3.92	194	2.17	459	5.09
Pneumonia ...	543	1.33	484	1.13	81	.92	112	1.25	117	1.29
Erysipelas ...	120	.29	140	.32	35	.39	54	.60	56	.62
Puerperal Fever ...	60	.14	73	.17	9	.12	24	.27	22	.24
Puerperal Pyrexia	—	—	33	.07	4	.04	7	.08	12	.13
Ophthalmia Neonatorum ...	53	.13	52	.12	13	.14	9	.10	17	.18
Enteric Fever ...	34	.08	37	.08	5	.05	1	.01	2	.02
Malaria	19	.04	3	.006	—	—	1	.01	—	—
Dysentery ...	2	.004	—	—	—	—	—	—	—	—
Encephalitis Lethargica ...	8	.02	13	.03	2	.02	1	.01	—	—
Anterior Poliomyelitis	8	.02	8	.018	1	.01	—	—	1	.01
Cerebro-Spinal Fever	7	.01	10	.02	—	—	1	.01	1	.01
Acute Polio Encephalitis ...	1	.002	1	.002	—	—	1	.01	—	—
Small Pox ...	—	—	1	.002	—	—	—	—	—	—
Continued Fever	—	—	—	—	—	—	—	—	1	.01
TOTAL ...	4354	10.74	5906	13.85	1325	15.04	876	9.83	1164	12.91

There was thus an increase in the number of cases notified due to the rise in the number of notifications of Scarlet Fever.

The notification of Chicken Pox was discontinued on the 1st July, 1934.

The notifications of Puerperal Fever and Puerperal Pyrexia reveal a greater readiness on the part of Medical Practitioners to notify cases of rise of temperature in the Puerperium.

The notifications of Pneumonia do not reveal the true prevalence of the disease.

No cases of Smallpox were notified in 1934.

SCARLET FEVER.

Table showing the numbers of cases of Scarlet Fever notified, the attack rates, the numbers and proportions of cases removed to Hospital, and the case fatality per cent. since 1891 :—

Periods.	Notifications.		Removals.		Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	2,654	4.29	993	37	1.9
1901—1910	1,126	1.60	880	78	1.3
1911—1920	2,683	3.51	2,070	77	1.6
1921—1930	1,562	1.87	1,423	91	.5
1891—1895	1,792	6.01	620	35	2.1
1896—1900	862	2.69	373	43	1.7
1901—1905	692	2.02	517	74	.8
1906—1910	434	1.20	363	83	2.1
1911—1915	2,065	5.45	1,513	73	1.8
1916—1920	618	1.59	557	90	.9
1921—1925	581	1.43	533	91	1.0
1926—1930	981	2.29	890	90	.3
1931	495	5.64	461	93	.6
1932	346	3.92	324	93	.3
1933	194	2.17	184	94	—
1934	459	5.11	421	91	—

There was, therefore, a very sharp rise in the number of notifications in 1934 as compared with the previous year.

In fact, the number of cases was the highest since the inception of notification except 1914 (996 notifications), 1893 (698), 1894 (673), 1915 (545) and 1931 (495).

The epidemic was characterised by two outstanding features :—

(1) The extreme mildness of the cases.

(2) The local nature of the outbreak.

The mild nature of the disease is shown by the absence of fatality.

The local nature of the outbreak is shown by its Ward distribution.

The Table shows this point together with the Quarterly distribution.

Ward.	Quarter of the Year.				Whole Year.
	March.	June.	September.	December.	
St. Margaret's ...	3	13	9	20	45
St. John's ...	14	14	4	6	38
Alexandra ...	13	18	5	26	62
St. Clement's ...	62	71	30	87	250
Bridge	15	11	2	6	34
West	11	9	6	5	31
BOROUGH ...	118	136	56	150	460

* One notification withdrawn.

Thus the whole weight of the outbreak fell on the St. Clement's Ward, and the great majority of the cases in this Ward were in the New Estates. The epidemic was a typical local outbreak, and showed quite clearly that housing conditions, however good, afford no protection against Scarlet Fever.

The history of Scarlet Fever in Ipswich so far as records go, divides itself quite naturally into two well-defined periods.

(1) The period from 1841-1890, during which the evidence is derived from deaths alone.

(2) The period from 1891 to the present time, in which the information is derived from (a) deaths and (b) notifications of cases.

Both these sources of information show that since 1841 the town has been repeatedly visited by epidemics of greater or less severity.

In my report for the year 1932 attention was drawn to the capacity for variation which experience has shown to be expected from Scarlet Fever at different times, and it was made clear that Scarlet Fever is not a single well-defined entity but a group, and that it is caused not by a single well-defined germ, but by a group of very nearly identical germs exhibiting their activities upon populations composed of individuals with capacities for resistance as variable as their personalities. It can be said of Scarlet Fever, perhaps more than of any other infection, that its most constant feature is variability.

In my Report for 1933 I gave a popular description of the modern view of the mode of spread of the infections grouped as Naso Pharyngeal, amongst which Scarlet Fever is included.

This Report will apply the considerations advanced in these two antecedent Reports to the case of Scarlet Fever.

The first and the most constant of the symptoms of Scarlet Fever is inflammation of the throat and adjacent parts of the nose and pharynx. This is the area of the primary infection by the germs of Scarlet Fever. It is from the naso pharynx that the infection is spread to other people by means of the breath in ordinary breathing or, in greater degree, by the acts of coughing and sneezing. The living germs of the disease are expelled from the naso pharynx of the infected person into the surrounding air by these means and any persons breathing in this contaminated air will automatically infect their own noses and throats.

In other words, Scarlet Fever is spread by personal contact between infected and non-infected persons.

There is one apparent exception to this, viz., milk epidemics of Scarlet Fever. These epidemics have their own characteristics and can be distinguished quite easily from the ordinary epidemic conditions. They have this in common, however, that the milk is infected from the naso pharynx of some infected person. The infected milk thus becomes the vehicle for the infection of the throats of people drinking the milk.

When people have become infected, the germs establish themselves in the throat and go on increasing in number and producing local poisons, as well as others, pass into the blood stream, without at first producing either a local reaction or constitutional symptoms. This is what is happening during the so-called incubation period of Scarlet Fever. At the end of this period one of two things may happen :—

(a) The resisting powers of the person are broken down and an attack of Scarlet Fever ensues, or

(b) The resisting powers of the person overcome the germ attack with the result that nothing obvious happens. In this case, however, the tissues of the person have acquired a new quality, that of being able to provide at once the exact antidote in case of subsequent infections by the same germs and thereby enhancing the power of resistance to subsequent infections. Such persons may ultimately develop complete immunity to all ordinary doses of infection. This is why older people seldom suffer from attacks of Scarlet Fever, especially those who have lived in the crowded parts of towns. Thus adult immunity is shown to be the product of repeated stimulation of the defensive forces by repeated doses of infection, never sufficiently virulent or massive as to overcome the defence and so produce an attack of Scarlet Fever. A process such as this means that the vast majority of the actual cases of Scarlet Fever should be children under 15 years of age, which is exactly what occurs.

Obviously the younger the child the less frequent will have been the opportunities of acquiring infection and developing immune qualities and, in consequence, the greater will be the liability to succumb to infection and develop the disease with all its attendant dangers.

The foregoing draws attention to the fact that far greater numbers of persons are infected by Scarlet Fever than develop the disease. In

other words, in every epidemic of Scarlet Fever the infection is circulating broadcast amongst the community. The evidence of the presence of the infection is the cases that occur, which are most numerous amongst the least immune or younger sections of the people.

In Measles, adult immunity is usually the result of an attack of the disease in childhood. In the case of Scarlet Fever, on the other hand, adult immunity is more often the result of the repeated sub-infective dosages we have been considering than of an attack of the disease.

Scarlet Fever epidemics run a rather prolonged course, at least as compared with Measles.

It used to be held that Scarlet Fever epidemics came to an end because all the people susceptible at the time got the disease. It is now known that this is not the case. I repeat that the epidemic comes to an end when a sufficient proportion of the population has become immunised by repeated sub-infective dosage by the concealed naso pharyngeal infection of which the actual cases are the visible evidence.

If this knowledge be applied to the recent epidemic on the New Estates the whole case becomes quite clear.

Surprise has been expressed that in a community housed as the people in these Estates are, with ample air space, modern houses, baths, etc., an epidemic of Scarlet Fever should occur. The answer to this is the fact that epidemics of Scarlet Fever are not directly associated with housing or environmental conditions. Our Notification Records, now 44 years old, prove quite conclusively that cases of Scarlet Fever are never absent, which is another way of stating that the infection, of which the cases are the evidence, is always in circulation amongst the community. It is merely a matter of common sense that the more dense the community the greater will be the speed and extent of the circulation of infection by personal contact. From this springs two proven generalisations of profound significance.

(1) The more dense the community the greater is the proportion of immune persons.

(2) The proportion of immune persons in any community increases as age advances.

Both of these conclusions mean simple increased opportunities for the reception of infection.

We have already indicated that Scarlet Fever is a group of clinical symptoms caused by a group of organisms. The number of members of the group of organisms capable of producing the phenomena associated with the Scarlet Fever group of diseases is constantly being added to. It is not suggested that all the members of the group of organisms are always present in a given community. In consequence, since the immunising response of the tissues is elicited by the poisons from the infecting germs and is specific to these poisons, it follows that the degree

of immunity established is always highest against the particular organism responsible for its production and less effective against any of the others. This is one explanation of variation in the type of epidemics which experience has shown is to be expected. The introduction of a new strain finds a community protected against the strains common in its midst, but only partially protected against a new variety.

In every community new persons are constantly arriving by birth and immigration. Infants are not really susceptible to Scarlet Fever until about nine months old, although there are plenty of exceptions to this generalisation. As the infants grow older they are brought in course of time more and more in contact with infection and unless they develop immune qualities sufficient to prevent disease, they will fall victims. As we have said before this is the reason why the vast majority of cases of Scarlet Fever occur amongst young children.

It is as well to point out that this view of epidemics means that the infection is being circulated by numbers of people who have not the faintest idea that they are carrying infection and would repudiate such a suggestion with indignation. These people are passers-on of infection, not carriers in the sense in which the term is commonly understood. It is better to limit the term carrier to the more chronic type.

There is no other reasonable explanation for the cases of Scarlet Fever that come as a bolt from the blue, without any contact with cases. Cases do spread the disease amongst those in attendance on them or in immediate contact in the home, but the great majority of cases in a house are single.

Investigations into the history of cases of Scarlet Fever fail in the great proportion to link up with other cases, except, of course, those in the home.

Discoverable carriers are responsible for a proportion of cases. The majority have no discoverable source.

The Hospital isolation of cases of Scarlet Fever has failed to influence the prevalence of the disease because, as we now know, the cases are not the epidemic, but only evidence of its existence.

Against this kind of infection there is one method and one alone that can be effective, and that is to imitate nature's own methods of immunisation by artificial immunisation under proper conditions of control and technique.

Until this position is realised, Scarlet Fever will continue to prevail.

Once again I warn the public that variation is the most constant characteristic of infections such as Scarlet Fever.

The experience of the 45 years 1841-1885 is a warning not to be ignored.

DIPHTHERIA.

Table showing the number of notifications of Diphtheria, the attack-rates, the numbers and proportions of the cases removed to Hospital and the case fatality per cent. in terms of Decennia and Quinquennia since 1891, together with the corresponding annual figures since 1931 :—

Periods.	Notifications.		Removals.		Deaths.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	Case Fatality per cent.
1891—1900	536	.88	33	6	29.3
1901—1910	791	1.12	461	58	12.9
1911—1920	1,779	2.33	1,618	90	7.1
1921—1930	1,208	1.45	1,167	96	4.3
1891—1895	273	.91	12	4	37.7
1896—1900	263	.82	21	8	20.5
1901—1905	428	1.22	185	43	13.5
1906—1910	363	1.01	276	76	12.1
1911—1915	628	1.66	532	84	9.4
1916—1920	1,151	2.97	1,086	94	5.9
1921—1925	736	1.81	708	96	3.4
1926—1930	472	1.10	459	97	5.7
1931	348	3.97	336	96	6.9
1932	178	2.02	176	99	6.7
1933	135	1.51	132	98	5.1
1934	90	.99	88	97	6.6

The present type of Diphtheria appeared in Ipswich in 1928 after a period of four years of extremely low prevalence.

The prevalence increased from 1928 to its maximum in 1931. Since then it has declined to the figure for the year 1934.

The severity judged by the case fatality per cent. still remains higher than in the period 1921-1927 inclusive.

The greatest number of cases was notified in the St. John's Ward (20) and the fewest in the Bridge Ward (9). The latter is explained by the outbreak in 1933, which brought about the immunisation of that area for the time being.

There were 19 cases in St. Margaret's Ward, 16 in St. Clement's, 15 in Alexandra, and 11 in the West Ward. The smallest number of cases was notified in the June Quarter (10) and the largest in the December Quarter (35).

There was, therefore, no evidence of epidemic conditions in any Ward during the year.

I have referred to the fact that the low prevalence in the Bridge Ward was due to the immunisation of the community by the outbreak at the end of 1933, and I gave an explanation of the modern theory of epidemics in my last Report.

This explains why the Bridge Ward community is immunised for the time being and is an excellent example of natural methods of immunisation and its attendant risks. Nature's mode in the Bridge Ward resulted in the loss of five lives.

In artificial immunisation, on the other hand, the means of immunisation and the methods of its practise render it possible to secure the same results without danger to the inoculated.

It is a great pity that only a small number of people take advantage of the opportunity of safeguarding their children from one of the most dangerous of the infections of the present day.

ENTERIC FEVER.

The following Table explains itself.

Periods.	Notifications.		Removals.		Case Fatality per cent.
	Numbers.	Attack Rates per 1,000 living.	Numbers.	Proportion per cent.	
1891—1900	938	1.51	376	40	12.8
1901—1910	485	.69	388	80	16.1
1911—1920	77	.10	62	80	7.7
1921—1930	71	.08	58	81	7.0
1891—1895	383	1.28	130	34	14.3
1896—1900	555	1.73	246	44	11.7
1901—1905	380	1.11	297	78	17.1
1906—1910	105	.29	91	86	12.4
1911—1915	56	.14	46	82	5.3
1916—1920	21	.05	16	76	14.3
1921—1925	34	.08	28	82	8.8
1926—1930	37	.08	30	81	5.4
1931	3	.03	3	100	—
1932	5	.05	5	100	20.0
1933	1	.01	1	100	—
1934	2	.02	2	100	—

Two cases of Paratyphoid B. occurred during the year, one in August and one in September. The cases were not related.

Both were removed to Hospital and both recovered.

One occurred in the St. Margaret's Ward and one in Alexandra.

SEPTIC INFECTIONS.

Of recent years, Septic Infections, including epidemics of sore throat, Scarlet Fever, Puerperal Sepsis, Erysipelas, and Mastoid diseases have been prevalent in various parts of the country, and Ipswich has had its share.

Thus in 1934 Erysipelas was not only more prevalent but more fatal than for many years past. There were 6 deaths from Erysipelas.

the largest number registered in any one year since the beginning of this century. Two of the deaths were of young infants.

Puerperal Sepsis was prevalent not only in the Borough but in the surrounding districts of the country.

The same may be said of Mastoid Disease.

The prevalence of Scarlet Fever and its type are dealt with in another part of this Report.

All these facts have meaning, although it is difficult to correlate them in the absence of more complete information about the life history of the Streptococcal group of germs.

TUBERCULOSIS.

NOTIFICATIONS OF TUBERCULOSIS SINCE 1909.

Table A.

Number of cases notified.

Year.	Pulmonary.			Non-Pulmonary.			All Forms.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1909	41	23	64	—	—	—	41	23	64
1910	29	15	44	—	—	—	29	15	44
Average	35	19	54	—	—	—	35	19	54
1911	75	57	132	—	—	—	75	57	132
1912	178	152	330	—	—	—	178	152	330
1913	112	88	200	58	52	110	170	140	310
1914	98	58	156	18	23	41	116	81	197
1915	60	56	116	18	20	38	78	76	154
1916	91	77	168	19	17	36	110	94	204
1917	77	78	155	18	12	30	95	90	185
1918	81	97	178	16	18	34	97	115	212
1919	82	82	164	26	39	65	108	121	229
1920	70	67	137	39	36	75	109	103	212
Average	92.4	81.2	173.6	21.2	21.7	42.9	113.6	102.9	216.5
1921	173	131	304	41	35	76	214	166	380
1922	90	65	155	23	21	44	113	86	199
1923	72	61	133	38	36	74	110	97	207
1924	72	69	141	24	28	52	96	97	193
1925	72	74	146	34	32	66	106	106	212
1926	55	68	123	41	35	76	96	103	199
1927	68	59	127	26	27	53	94	86	180
1928	72	69	141	20	24	44	92	93	185
1929	63	69	132	25	32	57	88	101	189
1930	62	54	116	19	26	45	81	80	161
Average	79.9	71.9	151.8	29.1	29.6	58.7	109.0	101.5	210.5
1931	69	63	132	24	23	47	93	86	179
1932	70	75	145	19	28	47	89	103	192
1933	80	82	162	21	19	40	101	101	202
1934	92	88	180	20	29	49	112	117	229

The increase in the number of notifications of cases of Pulmonary Tuberculosis continued. This has been a feature of the local Notification figures since 1930. The increase applies to both sexes, about equally. The notifications of Non-Pulmonary Tuberculosis, on the other hand, remain about stationary.

We still await the notification of the early case. This is not, at least locally, the fault of Practitioners, but is due to the fact that patients do not present themselves for examination in the early stages.

There are very few cases of Acute Pulmonary Tuberculosis in this area. The reverse, indeed, is the case, a fact which points to increase in the communal resistance to the infection of Tuberculosis. This is further evidence of the building up of that Racial Immunity to which reference has been made already.

Table giving the rates for 1934, and previous three years and two decennia :—

Periods.	Pulmonary.			Non-Pulmonary.			All Forms.		
	M.	F.	P.	M.	F.	P.	M.	F.	P.
1911—1920	2.55	2.01	2.27	.58	.54	.56	3.13	2.55	2.83
1921—1930	2.03	1.63	1.82	.74	.67	.70	2.77	2.30	2.52
1931	1.66	1.36	1.50	.58	.49	.53	2.24	1.85	2.03
1932	1.68	1.61	1.64	.45	.60	.53	2.13	2.21	2.17
1933	1.90	1.74	1.82	.50	.40	.45	2.40	2.14	2.27
1934	2.16	1.84	1.99	.46	.60	.54	2.63	2.45	2.54

The notification rates confirm the above, but point to an increase in the incidence of Pulmonary Tuberculosis amongst women at the present time. This is a feature that requires enquiry. So far no adequate explanation is forthcoming.

AGE AND SEX DISTRIBUTION OF THE NOTIFICATIONS OF TUBERCULOSIS, 1934.

Age.	Pulmonary.			All other forms.			Total 1934.			Total 1933.
	M.	F.	P.	M.	F.	P.	M.	F.	P.	Persons.
— 1	—	—	—	—	—	—	—	—	—	—
1— 5	1	—	1	2	7	9	3	7	10	8
5—10	12	11	23	7	7	14	19	18	37	44
10—15	13	4	17	6	6	12	19	10	29	18
15—20	6	14	20	3	2	5	9	16	25	20
20—25	4	13	17	—	1	1	4	14	18	19
25—35	19	21	40	1	3	4	20	24	44	30
35—45	11	15	26	1	1	2	12	16	28	29
45—55	19	9	28	—	—	—	19	9	28	18
55—65	5	1	6	—	—	—	5	1	6	10
65+	2	—	2	—	2	2	2	2	4	6
Total ...	92	88	180	20	29	49	112	117	229	202

The age distribution of the notifications shows some very interesting features. The first of these is the absence of any notifications under 1 year of age.

There was only one notification of Pulmonary Tuberculosis between 1 and 5 years of age.

The number of notifications of Pulmonary Tuberculosis is unduly high between 5 and 10 years.

There is an excess of female notifications between 15 and 25 years, and of males between 45 and 55 years.

The age and sex distribution of the notifications of Non-Pulmonary Tuberculosis is in accordance with expectation.

PRINCIPAL SITES OF TUBERCULOSIS.

The following Table shows the number of cases of the different varieties of Tuberculosis, notified since 1921 :—

Situation of Disease.	Average 1921—1925	Average 1926—1930	1930	1931	1932	1933	1934
Pulmonary ...	175.6	127.8	116	132	145	162	180
Abdominal ...	7.6	8.6	9	4	3	4	5
Cerebral ...	5.2	6.0	5	11	4	4	5
General ...	0.6	0.2	1	—	—	—	—
Bones and Joints	19.6	13.4	6	5	9	10	9
Glands ...	17.2	20.4	19	24	26	18	28
All other forms of T.B.	12.4	6.0	5	3	5	4	2
TOTAL ...	238.2	182.4	161	179	192	202	229

The site distribution emphasises the excess of Pulmonary Tuberculosis and the increase of recent years.

The decline in the infections of Bones and Joints is still in evidence, and the same may be said of Abdominal Tuberculosis, but not of the Cerebral variety.

TUBERCULOSIS SURVIVAL TABLE CORRECTED TO DECEMBER 31st, 1934.

The number of persons notified as suffering from the various forms of Tuberculosis and known to have survived on December 31st, 1934, is shown as follows :—

Sex.		Pulmonary.	Non-Pulmonary.	All Forms.
Males		752	306	1058
Females		702	328	1030
Persons		1454	634	2088
Persons	1933	1367	603	1970
	1932	1273	608	1881
	1931	1225	576	1801
	1930	1194	566	1760
	1929	1179	529	1708
	1928	1145	506	1651
	1927	1092	527	1619
	1926	1095	484	1579

Since the commencement of notification in 1911, there have been notified 3,873 cases of Pulmonary Tuberculosis, of whom 1,454 were alive at the end of December, 1934.

1,199 cases of Non-Pulmonary Tuberculosis have been notified since 1911, and of these 634 were alive at the end of 1934. These facts speak for themselves.

TUBERCULOSIS DISPENSARY.

The number of cases on the Dispensary Register (as distinct from the Notification Register) at December 31st, 1934, was 851.

This figure includes only those cases presenting themselves at the Dispensary during the last two years.

486 X-Ray examinations were carried out during 1934.

The Tuberculosis Officer paid 7 visits to the homes of patients, and, in addition, furnished Practitioners with 268 written reports upon patients sent to him for examination.

Year.	No. of Patients attending Dispensary.	No. of Visits paid by Patients.	No. of Visits to Homes by Nurse.
Average 1921—1925	569	3000	2622
1926—1930	587	2331	3171
1926	547	2823	3176
1927	587	2771	3194
1928	599	2289	3578
1929	605	1916	3079
1930	600	1858	2827
1931	581	2156	3495
1932	646	2734	3128
1933	760	2817	3641
1934	747	2514	3775

The figures show that the Tuberculosis Dispensary continues to deal with a very large proportion of the cases of Tuberculosis in our midst.

The Dispensary cases represent those who take advantage of the various services included in the local Tuberculosis Scheme.

INSTITUTIONAL TREATMENT OF TUBERCULOSIS.

(1) GENERAL.

During the year 206 patients were admitted to Institutions for the treatment of Tuberculosis, 169 were discharged, and 24 died.

With regard to the cases discharged from Institutions, the following summary of the results of treatment is furnished by the Medical Superintendents :—

Condition at time of discharge.	No. of cases.			
	Pulmonary.	Other Forms of Tuberculosis	Others.	Total.
Quiescent	64	17	—	81
Not Quiescent	37	4	—	41
Observation only	—	—	14	14
Poor-Law Institution ...	10	2	—	12
In Institutions under 28 days	7	14	—	21
TOTAL	118	37	14	169

(2) IPSWICH SANATORIUM.

Dr. W. F. Sutcliffe, the Medical Superintendent of Ipswich Sanatorium, supplies the following report for 1934 :—

REPORT OF CASES TREATED TO A CONCLUSION IN 1934.

During the year 202 cases, including 94 cases from Ipswich, were discharged. Seven of these, including three Ipswich cases, stayed under 28 days and, in accordance with Ministry of Health Circular 1368 of 28th December, 1933, are excluded from the tables. The tables therefore show 195 cases, including 91 Ipswich cases, as being treated to a conclusion during the year.

Table 1 shows the classification of all the cases. Table 2 shows the classification of the Ipswich cases separately.

Among the cases shown as "Not Quiescent" are many sufficiently improved to be able to resume their employment.

The Tables are in accordance with the regulations of the Ministry of Health.

TABLE I. ALL PATIENTS.

Classification on Admission		Condition at time of Discharge	Duration of Residential Treatment															Grand Totals
			Under 3 Months			3—6 Months			6—12 Months			More than 12 Months			Totals			
			M	W	C	M	W	C	M	W	C	M	W	C	M	W	C	
Pulmonary Tuberculosis	Class T.B. Minus	Quiescent ...	2	4	1	20	18	6	3	9	25	—	—	4	25	31	36	92
		Not Quiescent	—	2	—	1	2	5	—	2	1	—	—	2	1	6	8	15
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. Plus Group 1	Quiescent ...	—	—	—	2	3	—	1	1	—	—	—	—	3	4	—	7
		Not Quiescent	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 2	Quiescent ...	—	—	—	—	2	—	—	1	—	—	—	—	—	3	—	3
		Not Quiescent	3	—	—	6	4	—	9	10	1	2	2	—	20	16	1	37
		Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Class T.B. plus Group 3	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		Not Quiescent	3	5	—	4	11	—	3	7	1	1	1	—	11	24	1	36
		Died in Institution ...	1	—	—	—	2	—	—	1	—	—	—	—	1	3	—	4

OBSERVATION CASES.

For Pulmonary Tuberculosis												
Diagnosis on Discharge from Observation	Stay under 4 Weeks			Stay over 4 Weeks			Totals			Totals		
	M	W	C	M	W	C	M	W	C	M	W	C
Tuberculous ...	2	1	1	—	—	—	2	1	1	2	1	1
Non-Tuberculous ...	—	—	—	—	—	—	—	—	—	—	—	—
Doubtful ...	—	—	—	—	—	—	—	—	—	—	—	—
Totals ...	2	1	1	—	—	—	2	1	1	2	1	1

TABLE II. IPSWICH PATIENTS.

Pulmonary Tuberculosis. Classification on Admission.	Condition at time of Discharge.	Duration of Residential Treatment. Under 3 Months. M	Under 3 Months. W	Under 3 Months. C	3—6 Months. M	3—6 Months. W	3—6 Months. C	6—12 Months. M	6—12 Months. W	6—12 Months. C	More than 12 Months. M	More than 12 Months. W	More than 12 Months. C	Totals. M	Totals. W	Totals. C	Grand Totals.
Class T.B. Minus.	Quiescent ...	1	2	1	9	14	6	1	5	24	—	—	4	11	21	35	67
	Not Quiescent	—	—	—	—	1	4	—	1	1	—	—	2	—	2	7	9
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus Group 1.	Quiescent ...	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	1
	Not Quiescent	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus Group 2.	Quiescent ...	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	1
	Not Quiescent	—	—	—	2	1	—	1	2	—	—	—	—	3	3	—	6
	Died in Institution ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Class T.B. Plus Group 3.	Quiescent ...	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
	Not Quiescent	—	1	—	—	1	—	1	2	—	—	—	—	1	4	—	5
	Died in Institution ...	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	1

OBSERVATION CASES.

For Pulmonary Tuberculosis. Diagnosis on Discharge from Observation.	Stay under 4 Weeks. M	Stay under 4 Weeks. W	Stay under 4 Weeks. C	Stay over 4 Weeks. M	Stay over 4 Weeks. W	Stay over 4 Weeks. C	Totals. M	Totals. W	Totals. C
Tuberculous ...	—	1	1	—	—	—	—	1	1
Non-Tuberculous	—	—	—	—	—	—	—	—	—
Doubtful ...	—	—	—	—	—	—	—	—	—
Totals ...	—	1	1	—	—	—	—	1	1

W. F. SUTCLIFFE,
Medical Superintendent.

(3) EAST SUFFOLK AND IPSWICH HOSPITAL.

The following Table gives the number of Patients suffering from Surgical Tuberculosis who have been treated at the East Suffolk and Ipswich Hospital since 1925 :—

Year.	Remaining from Previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	12	44	56	45	3	8
1926	8	53	61	48	2	11
1927	11	29	40	36	2	2
1928	2	26	28	22	6	—
1929	—	21	21	19	1	1
1930	1	21	22	20	1	1
1931	1	24	25	18	—	7
1932	7	16	23	19	—	4
1933	4	32	36	31	—	5
1934	5	28	33	32	—	1

(4) IPSWICH ISOLATION HOSPITAL.

(a) Treatment of Surgical Tuberculosis.

Year.	Remaining from Previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	—	10	10	3	—	7
1926	7	6	13	4	1	8
1927	8	30	38	17	1	20
1928	20	20	40	23	3	14
1929	14	35	49	26	4	19
1930	19	32	51	34	2	15
1931*	15	2	17	17	—	—
1932*	—	19	19	—	—	19
1933	19	16	35	24	3	8
1934	8	8	16	4	—	12

*Ward closed from 21st January, 1931, to 14th October, 1932.

The Surgical Tuberculosis cases were transferred to the Small-pox Hospital on 14th April, and returned on 8th September, but it was necessary to send them out again on 29th October, 1934, where they remained until after the end of the year.

The cases admitted during the year fell into the following groups :—

Bones and Joints	...	...	5
Abdominal	...	...	—
Glandular	...	...	1
Other Forms	...	...	—
Observation Cases	...	...	2

The treatment of Surgical Tuberculosis is carried out, at the moment, under difficulties.

The Ipswich and East Suffolk Hospital has far too many demands on its beds to be able to set aside beds for the prolonged periods required in cases of so-called Surgical Tuberculosis.

In consequence, attempts have been made to relieve the Hospital by providing beds in the Isolation Hospital to which cases could be removed from the General Hospital.

When the Isolation Hospital beds are available the scheme works well, but this is not always the case.

The Small-pox Hospital has been tried, but it is unsatisfactory from the administrative and staff point of view.

This question requires the serious consideration of the Authority.

(b) Treatment of Advanced Tuberculosis.

Year.	Remaining from previous Year.	Admitted.	Treated.	Discharged.	Deaths.	Remaining.
1925	18	62	80	35	24	21
1926	21	60	81	39	25	17
1927	17	53	70	28	28	14
1928	14	62	76	22	27	27
1929	27	46	73	24	25	24
1930	24	65	89	34	27	28
1931*	28	19	47	36	11	—
1932	—	35	35	8	8	19
1933	19	48	67	32	18	17
1934	17	53	70	32	22	16

*Ward closed from 8th August, 1931, to 11th May, 1932.

The Advanced Tuberculous cases were also transferred to the Small-pox Hospital on 14th April and returned on 8th September.

The provision of treatment for advanced cases of Tuberculosis is an essential part of all schemes.

30 beds are set aside in the Isolation Hospital for this purpose and are, as a rule, available, but not always.

This is not a satisfactory position and also requires consideration.

DENTAL WORK IN CONNECTION WITH TUBERCULOSIS.

Mr. T. A. Edmondson, the Dental Surgeon, reports as follows :—

I beg to report on the dental treatment of Tuberculosis cases for the year ending 31st December, 1934.

	Males.	Females.	Total.
Number inspected at Clinic	34	42	76
,, ,, ,, Isolation Hospital ...	—	—	—
,, of visits to Isolation Hospital ...	—	—	—
,, ,, cases treated	23	39	62
,, ,, attendances made	114	172	286
,, ,, permanent teeth extracted ...	149	165	314
,, ,, Local Anæsthetic cases ...	44	40	84
,, ,, Nitrous Oxide administrations ...	—	13	13
,, ,, fillings in permanent teeth ...	28	84	112
,, ,, permanent teeth filled ...	25	75	100
,, ,, scalings, etc., of permanent teeth	326	284	610
,, ,, patients for whom Dentures were fitted	3	10	13

Of the 76 cases inspected, 51 were candidates for the Ipswich Sanatorium and one for the Borough Isolation Hospital.

Eleven insured persons entitled to dental benefit were referred to Private Practitioners for treatment.

Five cases were sent from the Sanatorium to the Clinic for urgent treatment.

(Signed) T. A. EDMONDSON,
Dental Surgeon.

MATERNITY AND CHILD WELFARE.

MATERNITY WELFARE.

Clinics held under the Maternity and Child Welfare Scheme under the personal supervision of the Assistant Medical Officer (Dr. Doris E. P. Jolly).

Mothers—Wednesday and Friday, 2.30 p.m., Elm Street.

ANTE AND POST-NATAL CLINICS.

The following Table gives the numbers examined and the total examinations by the Medical Officer, Dr. Jolly :—

Year.	Ante-Natal.			Post-Natal.			Total Examinations.
	Cases Examined.	Re-examinations.	Total.	Cases Examined.	Re-examinations.	Total.	
1924	27	18	45	—	—	—	45
1925	61	65	126	—	—	10	136
1926	123	81	204	—	—	48	252
1927	206	71	277	52	43	95	372
1928	290	115	405	67	66	133	538
Average	141	70	211	—	—	—	268
1929	311	343	654	79	63	142	796
1930	447	687	1134	92	44	136	1270
1931	476	656	1132	104	44	148	1280
1932	679	1016	1695	63	32	95	1790
1933	747	1122	1869	61	22	83	1952
Average	532	765	1297	80	41	121	1418
1934	751	1328	2079	70	22	92	2171

ANTE AND POST-NATAL CLINICS.—DEFECTS FOUND.

The examinations carried out at the Ante-Natal and Post-Natal Clinics revealed the following defects :—

Defect.	Ante-Natal.			Post-Natal.
	Public Health Dept.	Maternity Home.	Total.	
Albuminuria	17	2	19	1
Anæmia	1	—	1	3
Breast Disorders	—	—	—	2
Contracted Pelvis	5	—	5	—
Debility	1	—	1	2
Dental Caries	304	12	316	18
Disease of Heart	1	—	1	—
Dyspepsia	4	—	4	—
Gynæcological Disorders ...	8	—	8	10
Hæmorrhage	2	—	2	—
Hæmorrhoids	4	1	5	1
Malpresentation	—	—	—	—
Neuralgia	—	—	—	—
Oedema	1	—	1	—
Ophthalmic Disorders ...	2	—	2	—
Respiratory Diseases ...	8	—	8	2
Skin Disorders	3	—	3	—
Tuberculosis	—	—	—	—
Varicose Veins	109	4	113	1
All others	19	—	19	2
TOTAL	489	19	508	42

REPORT BY THE MEDICAL OFFICER IN CHARGE OF THE ANTE AND POST-NATAL CLINICS.

ANTE-NATALS.

600 of the 1,273 births in the Borough, or approximately 80% of the total midwife deliveries in 1934, made one or more attendances at the ante-natal clinics.

As usual, the least healthy type of mother, with the lowest standard of hygiene, proved the most difficult to supervise. Although this class of woman is small, they provide a relatively large amount of work for the clinic staff through their almost entire lack of co-operation.

The size and spacing of the family is a matter of sore interest. In an unselected group of 250 multiparæ the average number of previous pregnancies was 3.1, while further investigation of 100 cases gave an average of 2.8 years between the last two pregnancies. In 41 consecutive primiparæ seen, the average age of the mother was 23.2 years.

Maternal Mortality.

No maternal deaths occurred amongst the clinic cases in 1934. Nearly 4,000 cases have now passed through the clinic in the last 11 years, with two subsequent maternal deaths, a mortality rate of just over .5 per thousand.

Maternal Morbidity.

31 cases were referred to their own doctor or the Hospital for ill-health or complication of pregnancy found during routine ante-natal examination.

8 were cases of severe albuminuria, with increased blood pressure, necessitating in most cases institutional treatment. There were in addition 11 cases of mild or transient albuminuria, which responded to rest and diet. Two cases of ante-partum hæmorrhage and three of contracted pelvis were referred to Hospital.

It is a matter for regret that after 11 years of work amongst expectant mothers the importance of a healthy mouth is still so little appreciated, since of the 316 cases of obvious dental disease noted on routine examination, only 196 could be persuaded to permit even inspection by the dentists, and of this number only about 60% subsequently accepted treatment.

The present excessive numbers having to be seen per session frequently make it impossible to devote adequate time to the education and persuasion of the ignorant and hesitant mother.

Foetal Mortality.

22 or 3.3% of infants were stillborn, the general rate for the Borough being 4.5.

Post-Natals.

Up to the present it has not been possible to establish any clinic for routine examination and advice of the recently delivered or nursing mother, owing to lack of time; though there is no doubt that this work is valuable in assisting the mother to completely regain her health, and to satisfactorily establish breast feeding, a matter of enormous importance to the infant.

IPSWICH MATERNITY HOME.

I append a Table which shows the admissions since the opening of the Home in July, 1918:—

Year.	Cases admitted from			Total No. of Days.	Average duration of stay in days.	Per cent. of Total Ipswich Births.
	Ipswich.	Outside Areas.	Total.			
1919—1920	144	18	162	2,112	13.0	4.2
1921—1925	356	61	417	4,732	11.3	4.7
1926—1930	560	133	693	7,521	10.9	7.8
1926	71	15	86	935	10.8	4.6
1927	87	15	102	1,154	11.3	6.2
1928	114	27	141	1,562	11.1	8.2
1929	136	31	167	1,803	10.8	9.6
1930	152	45	197	2,067	10.5	10.6
1931	169	50	219	2,296	10.5	12.2
1932	200	33	233	2,494	10.7	14.3
1933	208	34	242	2,580	10.7	15.8
1934	258	56	314	3,285	10.5	20.5

66.5 per cent. of the women were confined by the midwives at the Home.

In 55 cases, or 26 per cent., medical assistance was sought (in one case for both mother and child), in 19 cases during labour, in 30 after labour, and in 7 for the infant.

One case of Puerperal Fever and two of Puerperal Pyrexia were notified during the year.

There were no maternal deaths, but 5 infants died under 10 days. Eight infants were stillborn, and one 5 months fœtus.

The monthly admissions are given below:—

January	21	July	24
February	26	August	32
March	19	September	29
April	29	October	23
May	26	November	24
June	27	December	34

This gives an average monthly number of 26, as compared with 20 in 1933.

It was found in the latter months of the year that the advance bookings for 1935 were such that increased accommodation would have to be provided, and, accordingly, three extra beds were provided by utilising the sister's bedroom and the duty room. The increased accommodation was brought into use early in 1935.

It was also found necessary during the year to increase the permanent staff of midwives from two to three. Accordingly, on January 1st, 1934, Midwife Hogg took up duties as night nurse.

MIDWIVES ACTS, 1902 AND 1918.

The number of midwives on the Local Roll at the close of 1934 was 16, and of these 6 were connected with the Ipswich Nurses' Home, Lower Brook Street, and 3 with the Ipswich Maternity Home.

The Ipswich cases attended by midwives amounted to 763, a figure which is made up as under :—

At Maternity Home	173
District Cases attended by Midwives from Ipswich Nurses' Home	256
Unattached or Outside Midwives	334

The midwives attended 60% of the Births registered during the year.

The Table shows the number of cases in which the midwives required medical help :—

Year.	Notifications received.			Percentage of Births attended by Midwives in which Medical Help was called in.
	On behalf of Mother.	On behalf of Child.	Total.	
1921-1925	320	164	484	12.5%
1926-1930	372	174	546	12.5%
1926	76	38	114	13.5%
1927	64	37	101	13.0%
1928	78	21	99	12.1%
1929	73	39	112	12.2%
1930	81	39	120	12.6%
1931	88	37	125	15.3%
1932	88	46	134	15.7%
1933	100	40	140	17.7%
1934	104	44	148	19.4%

The causes for which medical help was required are set forth as follows :—

	1934.	1933.	1932.	1931.	1930.	Average 1926—1930.	Average 1921-1925.
MOTHER :—							
Torn Perineum ...	35	40	29	30	27	21	16
Prolonged, Tedious or Difficult Labour ...	17	17	16	16	13	12	11
Faulty Presentations...	15	6	9	7	7	7	7
Impactions	3	—	3	4	4	4	4
Hæmorrhages ...	7	7	11	9	6	6	4
Puerperal Fever ...	3	6	—	2	4	4	2
Other Rise of Temperature	5	3	3	3	2	2	4
Adherent Placenta ...	1	4	4	3	—	3	3
Albuminuria	1	2	1	—	3	1	2
Phlebitis	3	1	1	1	1	2	1
Abortion	1	5	1	1	1	1	1
Contracted Pelvis ...	—	—	—	—	—	—	1
Eclampsia	—	1	—	—	1	1	1
Prolapse of Cord ...	—	1	—	—	1	1	1
Induction	—	—	3	—	—	—	—
Miscellaneous	13	7	7	12	11	9	6
TOTAL ...	104	100	88	88	81	74	64
CHILD :—							
Discharging Eyes ...	20	9	16	10	11	8	10
Debility, Feebleness, etc.	5	4	13	9	5	9	8
Prematurity	6	11	4	5	6	5	6
Malformations ...	2	5	7	2	4	4	2
Convulsions and Fits	1	—	1	1	1	1	2
Suffocation	—	—	—	—	—	—	1
Hæmorrhages (various)	4	2	1	2	4	2	—
Miscellaneous	6	9	4	8	8	6	3
TOTAL ...	44	40	46	37	39	35	32

ASSISTANCE SCHEMES IN CONNECTION WITH MATERNITY WELFARE.

The four main sections in the Scheme are: (a) Milk and Milk Foods to expectant and nursing mothers; (b) Provision of Maternity Home Accommodation at reduced fees; (c) Help towards the payment of the fees of Medical Practitioners called in by Midwives under the Midwives Act; (d) Provision of Dental treatment and Dentures.

(a) MILK SUPPLY.

The following Table shows the number of mothers and the quantity of milk supplied during 1934, together with the figures for previous years :—

Year.	Mothers.			Pints of Milk.		
	Expectant.	Nursing.	Total.	Expectant.	Nursing.	Total.
1930	39	104	143	1,823	10,989	12,812
1931	59	181	240	2,784	21,744	24,528
1932	101	272	373	4,991	26,971	31,962
1933	107	273	380	5,093	27,280	32,373
1934	80	198	278	3,616	20,659	24,275

(b) MATERNITY HOME FEES.

206 women out of a total of 258 were admitted to the Ipswich Maternity Home at reduced fees. This represents 79% of assisted cases in 1934, as compared with 79% in 1933 and 85% in 1932.

The full fee is 9/- per day, but women were admitted at varying rates as under :—

8/- ... 9	6/- ... 33	4/- ... 51	2/- ... 4
7/6 ... 2	5/6 ... 2	3/6 ... 6	1/- ... 1
7/- ... 19	5/- ... 47	3/- ... 11	Free ... 2
6/6 ... 1	4/6 ... 6	2/6 ... 12	

The same procedure was followed as in previous years, and the charges fixed in accordance with an income scale.

(c) DOCTORS' FEES.

The midwives found it necessary to call in medical assistance at 145 confinements for 148 causes. Accounts were received from Medical Practitioners in 115 of these cases.

The amount paid by the Local Authority was £153 7s. 0d., as compared with £142 0s. 0d. in 1933. In 83, or 72% of these cases, the fee has been settled in full, the amount recovered being £105 4s. 6d.

Eighteen, or 15%, desired to pay by instalments, and the sum received to date totals £15 3s. 0d.

In 14 cases the fee due has been written off on account of poverty.

To date, therefore, £120 7s. 6d., or 78% of the cost under this heading, has been recovered. The amount recovered in 1933 was 77%.

(d) DENTAL TREATMENT.

DENTAL WORK IN CONNECTION WITH MATERNITY WELFARE.

Mr. T. A. Edmondson, the Dental Surgeon, reports as follows :—

ANTE- AND POST-NATAL.

I beg to report on the dental treatment of Maternity Cases for the year ending December 31st, 1934. There are two classes, viz., Ante-Natal and Post-Natal.

The work done is detailed as follows :—

	Ante-Natal.	Post-Natal.	Total.
Number of mouths examined	196	86	282
,, having one or more septic teeth ...	176	70	246
,, advised to have treatment	195	84	279
,, actually treated at Clinic	120	62	182
,, of attendances made	448	361	809
,, ,, teeth extracted	616	397	1013
,, ,, Nitrous Oxide administrations ...	125	67	192
,, ,, Amalgam fillings	80	41	121
,, ,, Amalgam and cement fillings ...	55	15	70
,, ,, cement fillings	49	18	67
,, ,, fillings (total)	184	74	258
,, ,, teeth filled	174	60	234
,, ,, sundry dressings, scalings, etc. ...	919	243	1162

It will be noticed that of the Ante-Natal cases advised treatment 61.53% actually accepted treatment, whilst 73.81% Post-Natals were treated. 14 of the Post Natal cases were treated as Ante-Natal cases in a previous year.

Dentures were supplied in 44 cases, 5 ante-natal and 39 post-natal.

(Signed) T. A. EDMONDSON,
Dental Surgeon.

CHILD WELFARE.

The following is a Summary of the Home Visits since 1921 :—

HOME VISITS BY HEALTH VISITORS.

Year.	Expectant Mothers.	Children.		
		—1	1—5	Total.
Average 1921—1925	14	2,090	1,910	4,000
1926—1930	35	1,596	3,012	4,608
1926	18	1,643	2,149	3,792
1927	6	1,477	2,094	3,571
1928	20	1,621	4,432	6,053
1929	55	1,590	3,384	4,974
1930	75	1,647	3,004	4,651
1931	61	2,965	5,992	8,957
1932	69	3,721	6,326	10,047
1933	65	3,403	6,182	9,585
1934	120	3,158	5,825	8,983

In addition the Health Visitors paid visits under the following headings :—

To Midwives	54
,, Cases in which Midwives had summoned Medical assistance	62
,, Cases notified as suffering from Puerperal Fever, Ophthalmia Neonatorum, etc.	73
,, Stillbirths	57
,, Miscellaneous Visits	1450

1,006 visits were paid by members of the staff to homes in connection with fees relating to Medical assistance and the Maternity Home.

WORK OF THE INFANT CLINIC.

Under the supervision of the Health Visitors—Every Week-day afternoon except Saturday, 2.30 p.m., Elm Street.

The following is a summary of the visits paid to the Infant Welfare Centres since 1921 :—

Year.	Infants—1.	Children 1—5.	Total.
Average			
1921—1925	7,502	3,013	10,515
1926—1930	8,711	3,833	12,544
1926	7,428	3,083	10,511
1927	7,076	3,206	10,282
1928	9,144	4,079	13,223
1929	10,063	4,454	14,515
1930	9,846	4,345	14,191
1931	11,684	5,871	17,555
1932	10,996	5,902	16,898
1933	11,231	5,587	16,818
1934	10,649	5,476	16,125

(The Branch Clinic figures are included).

The following Table shows the number of visits paid to the Nacton Clinic :—

BRANCH CLINIC (Nacton Estate).

Under the supervision of the Health Visitors—Every Tuesday afternoon at 2.30 p.m., Red Triangle Hut.

Year.	Infants—1.	Children 1—5.	Total.
1929	1,243	481	1,724
1930	1,916	596	2,512
1931	2,660	1,263	3,923
1932	2,615	1,615	4,230
1933	3,175	1,657	4,832
1934	2,886	1,473	4,359

EXAMINATION OF INFANTS BY MEDICAL OFFICER.

Under the Personal Supervision of the Assistant Medical Officer (Dr. Doris E. P. Jolly).

Infants—Monday and Thursday, 2.30 p.m., Elm Street.
,, Tuesday, 2.30 p.m., Red Triangle Hut, Nacton Estate.

The infants examined by the Medical Officer during 1934 are classified in the following Table according to age groups :—

Age.	No. of Infants Examined.	No. of Re-Examinations.	Total 1934.	1933.	Average 1926 – 1930.
—1	834	2,125	2,959	3,078	1,645
—2	225	518	743	739	445
—3	188	319	507	452	217
—4	139	179	318	281	161
—5	97	114	211	201	117
Total	1,483	3,255	4,738	4,751	2,585

REPORT OF THE MEDICAL OFFICER IN CHARGE OF THE INFANT WELFARE CENTRE.

The work in connection with Child Welfare continued on the usual lines in 1934, although the actual number of individual visits to the Centres were somewhat less than in the preceding year.

This may be accounted for to some extent by the diminution in Home Visits paid by the Health Visitors owing to greater calls on their time by the School Medical Department. Efficient Home Visiting is essentially the backbone of Child Welfare work.

The number of medical consultations remains practically unchanged, but difficulty is still experienced in obtaining adequate attendance of the 2 to 5-year-old child—the so-called toddler group.

That these children need periodic examination and advice is proved by the fact that the defect rate for the 5-year-old school entrant is found to be 15 per cent. at the first school routine medical inspection.

A scheme to encourage systematic examination of the 3 to 4-year-old child is required to attack this high defect rate, and give the child the benefit of earlier diagnosis and treatment. Where Nursery Schools exist regular medical inspection is in force in connection with these; but even apart from such schools, special Toddler Clinics can, it has been found, be organised in connection with the ordinary Infant Welfare Centres, and once successfully established, appear to justify the increased expenditure of time.

Success in this matter, however, depends largely on such suitable propaganda amongst parents as will ensure their co-operation, for frequently parental knowledge of the special needs of the Toddler is particularly defective, and it is hoped that the proposed new clinic will provide greater opportunity for educational work amongst parents, fathers no less than mothers.

ARTIFICIAL LIGHT CLINIC.

Artificial Light Clinic—Monday, Tuesday, Thursday and Friday, 2.30 p.m., Elm Street.

The figures in the appended Table show the number of children who attended :—

Age.	No of Children Treated.	Number of Re-Visits.	Total 1934.	1933.	1932.	1931.
— 1	6	109	115	173	441	345
— 2	21	250	271	407	601	393
— 3	14	250	264	209	259	199
— 4	12	279	291	223	124	194
— 5	9	240	249	143	241	226
Total	62	1,128	1,190	1,155	1,666	1,357
School Children	68	1,096	1,164	1,659	2,802	3,086
Grand Total ...	130	2,224	2,354	2,814	4,468	4,443

The following Table shows the defects of the children referred to the Sunlight Clinic :—

Defect.	— 5 years.	+ 5 years.	Total.
Subnormal Nutrition ...	15	5	20
Pretubercular Debility ...	—	1	1
Enlarged Glands (Neck) ...	1	5	6
Rachitic & Prerachitic ...	3	—	3
Tuberculous Affections :—			
Cervical Glands ...	2	4	6
Abdominal ...	2	2	4
Bones & Joints ...	—	—	—
Lupus	—	1	1
Convalescence following Infectious Diseases ...	—	—	—
Catarrhal and Bronchial Infections	5	5	10
Anæmia, Debility and Marasmus	12	25	37
Unclassified	5	2	7
TOTAL ALL FORMS ...	45	50	95

OPHTHALMIA NEONATORUM.

Seventeen cases were notified in 1934, as compared with 9 in the previous year.

Five cases were treated at home by medical practitioners, with the nursing assistance of the nurses belonging to the Public Health Department and the Ipswich Nurses' Home.

Of the other cases nine were admitted to the East Suffolk and Ipswich Hospital, two to the Isolation Hospital, and one was treated in the Ipswich Maternity Home.

The following Table gives the result of treatment :—

Recovery without impairment of vision ...	17
Marked of impairment of both eyes ...	—
Died	—
Removed from District and lost sight of ...	—
	17

INFANT LIFE PROTECTION.

At the beginning of 1934 there were 65 Foster-Mothers and 82 children on the Register, whilst at the end of the year there remained 60 Foster-Mothers and 74 children.

The Health Visitors paid 148 visits to children under 5 years of age and 166 to children over 5 years.

During the year one child was removed from an unsuitable home and admitted to the Municipal Hospital.

One applicant for recognition as a Foster-Mother was considered unsuitable and her name was not entered in the Register.

ASSISTANCE SCHEMES IN CONNECTION WITH CHILD WELFARE.

The main sections of the schemes are :—(a) Milk and Milk Foods for Infants; (b) Provision of Dental Treatment.

(a) MILK AND MILK FOODS.

The following Table shows the number of Infants and the quantity of Milk or Milk Foods supplied during 1934, together with the figures for the four previous years :—

Year.	Infants.	Cows Milk. Pints.	Dried Milk. Lbs.	Dried Milk. Pints.	Total Pints of Milk.
1930	65	829	760	or 4,140	4,969
1931	88	635	989	or 5,687	6,322
1932	106	760	1,022	or 5,876	6,636
1933	98	963	1,198	or 6,888	7,851
1934	69	486	953	or 5,479	5,965

(b) DENTAL TREATMENT.

DENTAL WORK IN CONNECTION WITH INFANT WELFARE.

Mr. Edmondson reports as follows :—

	Males.	Females.	Total.
Number of cases inspected at Clinic ...	216	163	379
,, having septic conditions of the mouth	170	122	292
Actual number of cases treated at Clinic ...	192	145	337
Number of attendances	309	217	526
,, ,, temporary teeth extracted ...	416	260	676
,, ,, Local Anæsthetic cases ...	58	23	81
,, ,, Nitrous Oxide administrations ...	159	128	287
,, ,, fillings	81	62	143
,, ,, sundry dressings	8	29	37
,, to whom advice was given, treatment not being necessary	17	12	29

The ages of the children treated ranged from 1 to 5 years, as follows : 1 year, 4; 2 years, 20; 3 years, 88; 4 years, 225.

(Signed) T. A. EDMONDSON,
Dental Surgeon.

IPSWICH ISOLATION HOSPITAL.

The appended Table shows the total numbers admitted to, and treated at, the Hospital since 1901 :—

Year.	Admissions.	Total Treated.
Annual Average 1901—1910	176	202
.. 1911—1920	574	634
.. 1921—1930	490	561
.. 1921—1925	423	484
.. 1926—1930	557	639
1931	1,068	1,200
1932	783	944
1933	647	744
1934	955	1,072

1934 was one of the heaviest years in the experience of the Hospital.

The principal infection was Scarlet Fever, which was prevalent, not only in Ipswich, but the surrounding areas of the County.

Patients were admitted to the Hospital from the under-mentioned Authorities :—

Authority.	Infectious Diseases.	Tuberculosis.	Total.
Ipswich	624	51	675
County Councils—			
East Suffolk	13	10	23
.. .. (Public Assist. Committee)	4	—	4
London	—	—	—
Norfolk	1	—	1
Urban District Councils—			
Aldeburgh	3	—	3
Felixstowe	24	—	24
Hadleigh	2	—	2
Leiston	4	—	4
Southwold	7	—	7
Saxmundham	7	—	7
Woodbridge	9	—	9
Rural District Councils—			
Blyth	16	—	16
Gipping	6	—	6
Cosford	24	—	24
East Stow	—	—	—
Hartismere	30	—	30
Lothingland	5	—	5
Mildenhall	—	—	—
Plomesgate (late) ...	3	—	3
Samford	55	—	55
Deben	47	—	47
Other Authorities—			
Royal Air Force, Felixstowe	4	—	4
.. .. .. Martlesham	—	—	—
Private O.B. Cases ...	6	—	6
Port Sanitary Authority ...	—	—	—
TOTAL	894	61	955

The admissions included 894 Infectious Diseases and 61 cases of Tuberculosis.

Of these 624 Infectious and 51 cases of Tuberculosis were admitted from Ipswich, and 270 Infectious and 10 cases of Tuberculosis from the County.

In round figures 30% of the admissions were from the County areas.

The number of cases admitted from the County and their proportion of the total admissions were by far the highest recorded.

Modern knowledge of the mode of spread of the Naso-pharyngeal group of infection, e.g., Scarlet Fever and Diphtheria, establishes the influence of personal contact between persons harbouring infection and the rest of the community. It becomes a matter of opportunity. Therefore, since the ramifications and speed of modern means of transport have put an end to the isolation of rural communities, and the habits of the inhabitants of rural areas have undergone considerable changes, it is in strict accord with expectation that outbreaks of infectious disease in these areas should be not only more frequent but more widespread.

ACCOMMODATION.

Table giving the number of admissions and Patient Days for Ipswich and Outside Borough Patients (Infectious Diseases only):—

Year.	Admissions.				Patient Days.				Average Weekly number under treatment.
	Ipswich.	"Outside" Patients.	Total.	% of Outside Patients.	Ipswich.	"Outside" Patients.	Total.	% of Outside days.	
1929	528	123	651	18.9	18,609	4,448	23,057	19.3	74
1930	535	124	659	18.8	19,002	4,931	23,933	20.6	77
1931	902	145	1047	13.8	36,308	5,617	41,925	13.4	135
1932	590	139	729	19.0	26,644	6,113	32,757	18.7	103
1933	430	153	583	26.2	17,026	6,184	23,210	26.6	73
1934	624	270	894	30.2	24,327	11,393	35,720	31.8	112

The high proportion of outside cases is very evident in this Table, and apparently there is a tendency to increase.

The proportions of Hospital isolations to notifications is different in the County Districts from what it is in the Town. In the Town over 90% of the notified cases of Scarlet Fever and Diphtheria are removed to Hospital, whereas in the County areas the proportion seems to be between 50 and 60%.

It is a matter of probability that the provision of larger, better equipped Hospitals, available for the County population, would result in a greater demand for Hospitalisation.

In the Town the public demand Hospital accommodation and it is quite likely that rural populations will, in time, make the same demand if accommodation of the right sort is available.

For this reason little reliance can be placed upon the figures given, as affording a reliable guide to the amount of new accommodation required.

The following Table gives the usual details as to admissions, etc. :—

Disease		Average 1921–1925	Average 1926–1930	1933	1934
INFECTIOUS DISEASES.	No. in Hospital Jan. 1st	41	47	57	92
	Admissions ...	357	475	583	894
	Total Treated ...	398	522	640	986
	No. discharged ...	349	444	521	851
	,, of deaths ...	16	21	27	36
	,, Remaining Dec. 31st	33	57	92	99
TUBERCULOSIS.	No. in Hospital Jan. 1st	18	21	19	17
	Admissions ...	66	57	48	53
	Total Treated ...	84	78	67	70
	No. Discharged ...	46	28	32	32
	,, of Deaths ...	18	28	18	22
	,, Remaining Dec. 31st	20	22	17	16
SURGICAL TUBERCULOSIS.	No. in Hospital Jan. 1st	—	14	19	8
	Admissions ...	—	25	16	8
	Total Treated ...	—	39	35	16
	No. Discharged ...	—	21	24	4
	,, of Deaths ...	—	3	3	—
	,, Remaining Dec. 31st	—	15	8	12
TOTAL.	No. in Hospital Jan. 1st	59	82	95	117
	Admissions ...	423	557	647	955
	Total Treated ...	482	639	742	1072
	No. Discharged ...	395	493	577	887
	,, of Deaths ...	34	52	48	58
	,, Remaining Dec. 31st	53	94	117	127

Table showing the principal Diseases admitted to the Isolation Hospital, together with the fatalities attached to each :—

Diseases	No. of Cases Admitted			Deaths			Case Fatality per cent.
	Ipswich	Other Districts	Total	Ipswich	Other Districts	Total	
Scarlet Fever ...	416	198	614	—	3	3	0.48
Diphtheria ...	67	28	95	3	1	4	4.21
Other Throat, etc. Diseases—							
+ Contacts, etc.	16	—	16	—	—	—	—
Tonsillitis ...	30	9	39	—	1	1	2.56
Pneumonia ...	11	1	12	3	—	3	25.00
Erysipelas ...	13	9	22	4	3	7	31.81
Measles	8	2	10	—	—	—	—
Puerperal Fever ...	13	14	27	3	5	8	29.62
Do. Pyrexia ...	1	—	1	—	—	—	—
Enteric Group ...	3	1	4	1	—	1	25.00
Pertussis	10	1	11	4	1	5	45.45
Ophthalmia Neonatorum ...	3	—	3	—	—	—	—
Laryngitis ...	—	1	1	—	—	—	—
Chicken Pox ...	3	—	3	—	—	—	—
Mumps	1	—	1	—	—	—	—
Miscellaneous Group	14	4	18	3	1	4	22.2
Nils, Queries, etc. ...	15	2	17	—	—	—	—
TOTAL ... (Infectious Group)	624	270	894	21	15	36	4.03
Tuberculosis—							
Pulmonary ...	43	10	53	16	6	22	41.50
Other Forms ...	8	—	8	—	—	—	—
GRAND TOTAL ...	675	280	955	37	21	58	6.073

This Table illustrates once again that the fatality rate of County cases tends to be higher than that of those from the Town.

Thus all County infections showed a case fatality of 5.55% as compared with 3.36% for the Town.

County Puerperal mortality was equal to 35.7% as compared with 23% for the Town, and Scarlet Fever of 1.51% as compared with nil from the Town.

The explanation may be that only the worst County cases were removed to Hospital.

Attention is called to the high mortality rate from Erysipelas.

SMALL-POX HOSPITAL.

This Hospital was not utilised for the treatment of any case of Small-pox during 1934.

HEATHFIELDS MUNICIPAL HOSPITAL.

The following Table gives the statistics for 1934 :—

	Males.	Females.	Persons.	1933.
No. in Hospital on 1st January, 1934	126	119	245	250
Admissions during the year ...	397	269	666	720
Total treated	523	388	911	970
Discharges during the year ...	304	195	499	559
Deaths during the year	89	63	152	166
Remaining on 31st December, 1934	130	130	260	245

The duration of stay of the 651 persons who were either discharged from, or who died in, the Institution was as follows :—

(a) Four weeks or less 377
(b) Exceeding four weeks, but under 13 weeks 160
(c) Exceeding 13 weeks 114

The types of cases admitted are indicated briefly in the following rough classification of some of the principal diseases or groups of diseases dealt with :—

Types of Cases.	Nos. Admitted.		
	1932	1933	1934
Dementia	32	53	45
Senile Dementia	4	4	4
Epilepsy	23	24	17
Other diseases of nervous system ...	54	75	62
Heart diseases	54	85	75
Senile decay	41	20	24
Diseases of skin	42	23	30
Bronchitis	42	38	52
Cancer	45	43	29
Tuberculosis	32	16	20
Maternity	19	19	20
Violence	38	26	19

The age distribution of the admissions was as follows :—

Age Periods.	No. Admitted.		
	1932	1933	1934
Under 1 year ...	45	51	48
1—25 years ...	102	92	78
25—45 ,, ...	209	169	134
45—65 ,, ...	258	183	159
65—85 ,, ...	237	210	226
Over 85 ,, ...	18	15	21
Total ...	869	720	666

AMBULANCE SERVICE.

The appended Table indicates the journeys and mileage run during 1934, as compared with the previous year, and the average of the four years 1928-1931.

SERVICE.		Average 1928—1931 (inclusive).	1933	1934
AMBULANCE.				
Ipswich ...	Journeys	544	395	652
	Miles ...	2404	1753	2804
Out of Borough ...	Journeys	97	123	199
	Miles ...	2918	3325	5550
Total ...	Journeys	641	518	851
	Miles ...	5322	5078	8354
BEDDING VANS.				
Collection of Bedding	Journeys	237	216	249
	Miles ...	1691	1660	1910
Return of Bedding	Journeys	113	81	87
	Miles ...	995	721	891
Collection of Meat	Journeys	96	78	49
	Miles ...	658	358	244
Port Work Pin Mill	Journeys	7	—	—
	Miles ...	130	—	—
Small Pox Hospital	Journeys	11	—	71
	Miles ...	61	—	355
Other Journeys	Journeys	95	118	122
	Miles ...	1112	1231	1118
Total ...	Journeys	559	493	578
	Miles ...	4647	3970	4518

The Motor Ambulance and Bedding Van were brought into use on January 1st, 1928, and have thus completed seven years of useful service.

The total journeys and mileage run are given below :—

	Journeys.	Miles.
Ambulance	4,580	39,754
Bedding Van	3,881	31,241
	8,461	70,995

Both the Ambulance and the Bedding Van show definite evidence of the effects of age.

LABORATORY.

The work carried out in the Laboratory of this Department since 1921 is as follows :—

	SWABS from Cases of Diphtheria or Suspected Diphtheria.			SPUTA from Actual or Suspected Cases of Tuberculosis.		
Year.	Examined.	Positive.	Per cent. Positive.	Examined	Positive.	Per cent. Positive.
Average 1921-25	1,260	240	19%	218	52	24%
1926-30	1,560	239	15%	236	68	29%
1931	5,023	793	16%	232	52	22%
1932	4,847	679	14%	234	62	26%
1933	3,171	285	9%	312	85	27%
1934	3,640	274	7%	289	80	27%

1,588 Urines were examined in connection with the Ante-Natal Clinic, with the following results :—

Albumen, trace	82
Albumen, cloud	12
Sugar	80
Pus	4

Examinations carried out at other Laboratories on behalf of the Local Authority during 1934 were as follows :—

Widals (Typhoid and Para. A and B) ...	6
Urines	3
Fæces	3
Virulent Test K.L.B.	32
Bacterial Count Milk	17
Bath Water Analyses	70
Other Water Analyses	3
Swabs	34
Cerebro-spinal Fluids	6
Blood Count	1
Miscellaneous for Sanitary Inspector ...	2

These figures do not include work carried out by the Public Analyst, particulars of which are given in the Chief Sanitary Inspector's Report.

In addition, under the V.D. Scheme, the following specimens were examined at the East Suffolk County Laboratory :—

	East Suffolk Hospital Clinic.	Private Practitioners.
For Gonococci	—	21
For Wasserman Reaction ...	75	83
Cultural Test for Gonococcus ...	60	—
Cerebro-spinal Fluid for Wasserman Reaction	—	3

The total cost of this service was £98 12s. 10d.

HEALTH EDUCATION.

There was no change during 1934 with regard to the arrangements for Health Education.

There was no Health Week, but the monthly journal "Better Health" was distributed as usual

The Central Council for Health Education has sent each month six sets of posters which have been exhibited on six poster frames in the town.

VACCINATION.

There was no change during 1934 in the Vaccination Scheme.

The figures in the following Table are supplied by the Vaccination Officers :—

	Ipswich Eastern.		Ipswich Western.		Ipswich.	
	Nos.	Per cent	Nos.	Per cent.	Nos.	Per cent.
No. of Children Registered during 1934	703	—	693	—	1396	—
Cases Vaccinated	132	18.8	151	21.8	283	20.3
No. of objections to Vaccination	535	76.1	495	71.4	1030	73.7
No. of Infants insusceptible ...	1		2		3	
No. of Infants who died unvaccinated	26		24		50	
No. of Children who left the district	8	5.1	16	6.8	24	6.0
Postponed or cases in the hands of the Public Vaccinator ...	1		5		6	

The percentage of children vaccinated during the last four years is given below :—

1931	...	13.7%
1932	...	18.9%
1933	...	17.4%
1934	...	20.3%

VENEREAL DISEASES.

REPORT RELATING TO ALL PERSONS WHO WERE TREATED AT THE TREATMENT CENTRE AT IPSWICH DURING THE YEAR ENDING DECEMBER 31ST, 1934

By Dr. F. Fowler Ward

(Medical Officer in Charge, Venereal Diseases Clinic).

The number of cases treated in 1934 were:—	Males.	Females.	Persons.
Gonorrhœa	85	41	126
Syphilis	97	59	156
Soft Chancre	2	—	2
Other conditions	43	34	77
Total 1934	**227**	**134**	**361**
Total 1933	220	125	345
,, 1932	239	120	359
,, 1931	240	131	371
,, 1930	264	138	402

The number of cases treated is approximately the same for the last four years.

The number of cases dealt with *for the first time* during the years 1930-1934 are given below classified according to residence :—

Year.	Ipswich.	East Suffolk.	West Suffolk.	Essex.	Total.
1930	145	64	6	14	229
1931	129	63	2	16	210
1932	128	64	1	13	206
1933	113	67	4	10	194
1934	127	57	3	7	194

There is a slight falling off of cases seen for the first time during 1933 and 1934.

OUT-PATIENT ATTENDANCES.

(a) For individual attention by Medical Officer.

	Males.	Females.	Persons.
Gonorrhœa	733	407	1,140
Syphilis	789	416	1,205
Soft Chancre	2	—	2
Other conditions	66	155	221
Total 1934	**1,590**	**978**	**2,568**
Total 1933	1,688	964	2,652
,, 1932	1,539	782	2,321
,, 1931	1,668	724	2,392
,, 1930	1,620	1,078	2,698

The number of individual attendances is smaller than in 1933.

(b) For intermediate treatment (irrigation, dressing, etc.).

	Males.	Females.	Persons.
Gonorrhœa	3,794	786	4,580
Total 1933 ...	4,293	654	4,947
,, 1932 ...	2,902	563	3,465
,, 1931 ...	3,203	735	3,938
,, 1930 ...	2,773	454	3,227

The figures for intermediate treatment have risen. It is found that cases having regular intermediate treatment improve more rapidly than others, and patients have been urged to attend as frequently as possible.

(c) Total.

	Males.	Females.	Persons
Gonorrhœa	4,527	1,193	5,720
Syphilis	789	416	1,205
Soft Chancre	2	—	2
Other conditions ...	66	155	221
Total 1934 ...	**5,384**	**1,764**	**7,148**
Total 1933 ...	5,981	1,618	7,599
,, 1932 ...	4,441	1,345	5,786
,, 1931 ...	4,871	1,459	6,330
,, 1930 ...	4,393	1,532	5,925

The total number of attendances is less, due to a decrease in the number of fresh cases.

Total number of attendances of all patients residing in each area :—

Year.	**Ipswich.**	East Suffolk.	West Suffolk.	Essex.	Total.
1930	**4,641**	901	193	190	5,925
1931	**5,042**	1,053	38	197	6,330
1932	**4,653**	992	25	116	5,786
1933	**6,499**	926	61	113	7,599
1934	**5,931**	1,041	49	127	7,148

The table shows that Venereal Disease is more prevalent in urban than county districts.

IN-PATIENT DAYS.

Number of Patients and aggregate number of " In-patient days " of treatment :—

	Males.		Females.		Persons.	
	Patients	Days.	Patients.	Days.	Patients.	Days.
Syphilis	—	—	—	—	—	—
Gonorrhœa ...	8	211	8	241	16	452
Soft Chancre ...	—	—	—	—	—	—
Other conditions ...	—	—	2	43	2	43
Total 1934 ...	**8**	**211**	**10**	**284**	**18**	**495**
Total 1933 ...	8	75	7	222	15	297
,, 1932 ...	8	90	10	413	18	503
,, 1931 ...	5	38	11	215	16	253
,, 1930 ...	8	135	4	70	12	205

The increase in " In-patient days " of treatment is largely due to complications occurring in cases of acute Gonorrhœa.

The following Table shows the " In-patient days " classified according to areas :—

Year.	Ipswich.	East Suffolk.	West Suffolk.	Essex.	Total.
1930	**98**	69	22	16	205
1931	**151**	61	—	41	253
1932	**242**	222	21	18	503
1933	**87**	194	—	16	297
1934	**202**	169	93	31	495

The relatively large number of " In-patient days " in cases admitted from county areas is accounted for by the fact that in severe disease it is found preferable to give treatment in Hospital rather than run the risk of complications caused by travelling.

EXAMINATION OF PATHOLOGICAL MATERIAL AND NUMBER OF DOSES OF ARSENOBENZENE COMPOUNDS GIVEN.

Year	Specimens Examined by Medical Officer at Centre.		Specimens Examined by an Approved Laboratory.		No. of doses of Arsenobenzene Compounds.				
	Spirochaetes	Gonococci	Wassermanns	Gonococci	Ipswich	East Suffolk	West Suffolk	Essex	Total
1930	12	213	173	106	128	75	6	26	235
1931	9	209	165	129	197	159	6	68	430
1932	3	187	144	78	253	147	8	54	462
1933	8	193	120	101	241	83	25	59	408
1934	4	155	117	73	267	144	15	16	442

The decrease in the number of specimens examined is due to the smaller number of fresh cases.

The Arsenobenzene compounds are freely used, the effects of the treatment being controlled by the Wasserman Reaction.

WATER SUPPLY.

The following is the return of the approximate amounts of water supplied from the various sources during 1934 :—

	Gallons.
Total Water from Wells in Waterworks Street ...	363,758,000
Total Water from Wells at Whitton	571,315,000
Total Supply, all sources	935,073,000

	Gallons.
Supply, per head, per day, including Trades ...	27.38
,, ,, ,, ,, ,, 1933	28.3
,, ,, ,, ,, ,, 1932	26.0
,, ,, ,, ,, ,, 1931	25.5
,, ,, ,, ,, ,, 1930	25.0

I am indebted to Mr. E. McLauchlan, the Borough and Water Engineer, for the figures.

The water is analysed at frequent intervals. No question has ever risen with regard to the purity of the Waters.

WATER OF SWIMMING BATHS.

In 1934, the experiments begun in 1932, and amplified in 1933, were continued and a detailed examination of the water in the St. Matthew's and Fore Street Baths was carried out.

It had long been obvious that the methods of examination of Swimming Bath waters usually adopted could not yield other than totally misleading results. A very little consideration will show that Bacterial counts of chlorinated waters made several hours after removal from the bath cannot give true information as to the Bacterial count of the water in actual use in the bath.

The water of a properly conducted modern bath is subjected to certain processes, the object of which is to remove the impurities which are introduced into the bath by the persons using it.

The ideal bath is a stream of running water with one person in it swimming up stream.

The worst form of bath is that in which there are many bathers, and the water is retained without methods of purification, the bath being filled and emptied at periodic intervals. Such baths become progressively more foul with each day's use. The method means that at the end of each period the bath water contains the whole of the impurities, chemical and bacterial, introduced by all the bathers making use of it.

The only safe Public Swimming Bath is one in which the water undergoes adequate sterilisation and purification. This involves a rather complicated series of treatments, roughly as follows :—

1. The water must be pumped through the bath at such a speed as to ensure that the whole of it undergoes treatment at least every 3½-4 hours.
2. The treatments required involve :—
   (a) Chlorination.
   (b) Aeration.
   (c) Chemical treatment to neutralise acidity and induce coagulation.
   (d) Filtration to remove all suspended material.

The efficient performance of these different operations should result in the production and maintenance of a bath water as free from bacterial danger and chemical impurity as it is possible to secure.

When the Ipswich water is run into the bath it has a certain normal colour and it has been a matter of considerable experiment to find how this exact condition can be maintained. The result of experiments has shown that the normal colour can be produced at will by adjustment between the proportions of chlorine and alkali in relation to the number, sex and cleanliness of the bathers.

In regard to the last point the installation of shower baths and foot baths, whose use is compulsory before entering the main bath, has proved of great value, and should be regarded as an essential part of the equipment of all Public Baths.

The bacteriological examination of bath water provides the most sensitive test of the success of the arrangements for the preservation of the purity of the water.

An exhaustive bacteriological examination was carried out in Ipswich in 1934 with the object of determining the following questions :—

1. The number of germs in the water.
2. Their identity.
3. Their duration of life in a bath water adequately chlorinated and aerated, efficiently filtered, correctly neutralised and moving at the rate of 25,000 gallons per hour.

The experiments were conducted as follows.

The Bacteriologist went to the bath with a sterile bottle for the collection of the sample and agar plates for the immediate plating of a portion of the water. This was carried out on the spot within 3 or 4 minutes of the removal of the bath water, so that the germs growing on this plate represented the actual germs in the water of the bath at the time of collection. This was called the Zero hour. The remainder of the sample bottle was taken to the Laboratory and plates were made from it at intervals of one hour up to six hours.

The series of hourly plates were examined in due course and the results recorded. These results showed that bacteria were invariably most numerous at the Zero hour and that these numbers decreased rapidly at each subsequent hour. The water became sterile in from four to six hours after removal from the bath.

B. Coli were found at the Zero hour on two occasions only in the whole series, in both cases in association with deficient chlorination.

In both cases they had disappeared before the end of the first hour.

No other Pathogenic bacteria were detected at any time in any of the baths.

The bacteria found included B. Subtilis, which was always present and lasted up to four to six hours. This harmless germ contributed the greater proportion of the germ life of the bath water. The other harmless organism was a rather resistant gram negative coccus which had usually disappeared in four hours.

Moulds were found from time to time.

The conclusions arrived at are that Swimming Bath Water treated as it is in Ipswich, and subject to the skilled supervision of the Baths Superintendent, provides the safest form of Public Bathing.

I emphasise the paramount importance of skilled supervision of the whole of the arrangements.

The usual method of collecting samples and sending them away to a Laboratory is grossly misleading, as my results prove conclusively.

It is the rare exception to find dangerous bacteria in our bath water.

The bacteria that are found are harmless.

STREET CLEANSING AND COLLECTION AND DISPOSAL OF HOUSE REFUSE.

CLEANSING SUPERINTENDENT'S REPORT.

Table indicating the cost of Public Cleansing in Ipswich since 1927-28, together with the average cost for 110 Cities and Boroughs, 1933-34.

YEAR.	Number of Houses.	Population.	Average weight per 1,000 population.	Net Expenditure per ton per annum.			Net Expenditure per 1,000 population per annum.			Net Expenditure per 1,000 houses per annum.			Rate in the £.	Street Cleansing.		
				Collection.	Disposal.	Total.	Collection.	Disposal.	Total.	Collection.	Disposal.	Total.		Cost per 1,000 population.	Cost per 100 yds. of streets cleansed.	Cost per 1,000 gullies emptied.
			cwts.	s. d.	s. d.	s. d.	£	£	£	£	£	£	d.	£ s. d.	s. d.	£
1927-28	21688	84140	7.7	12 2	10 3	22 5	86	72	158	360	305	665	7.49	83 8	—	—
1928-29	22404	85990	7.7	11 5	10 3	21 8	81	72	153	334	300	634	7.22	94 6	—	—
1929-30	22986	85800	8.5	12 0	6 10	18 10	91	52	143	339	193	532	6.72	90 5	22 7	—
1930-31	23280	86860	8.4	11 11	7 10	19 9	92	60	152	344	225	569	7.04	89 7	21 3	—
1931-32	23413	87770	8.3	12 2	8 3	20 5	93	66	159	349	247	596	7.30	89 7	21 9	—
1932-33	24115	88700	8.5	11 11	7 6	19 5	92	58	150	338	214	552	6.70	86 16	21 2	47.2
1933-34	24870	89070	8.5	11 8	7 5	19 1	91	57	148	326	206	532	6.60	90 8	21 1	47.1
Average for 110 cities and boroughs	—	—	16.3	9 5	5 2	14 7	133	73	206	618	338	956	—	148 4	—	—

An examination of the foregoing Table indicates that a small reduction is recorded under each of the sections, while the figure for cost per 1,000 houses (£532) continues to be very much less than the average for the 110 cities and boroughs (£956).

During the year the number of houses has increased by 755 to 24,870 and the population by 370 to 89,070.

In November, 1933, we commenced controlled tipping at Clapgate Lane, and up to March 31st, 1934, 1,236 tons of refuse had been dealt with in this manner, at a cost of 5s. 1d. per ton, as against the destructor cost of 7s. 7d.

The cost of gulley emptying is slightly lower for the year, but it is hoped to bring about a considerable improvement in these figures by the use of the mechanical gulley emptier.

Snow clearance cost £122, and the previous year £284.

A close analysis of the year's figures does not appear to promise very helpful results in view of the fact that the collection of refuse, disposal of refuse, and gulley cleansing have since the close of the year under review been materially affected by the introduction of petrol collection vehicles, controlled tips, and the mechanical gulley emptier, respectively.

The following items however, are of interest :—

24 lbs. of refuse is collected from each house each week, at a cost of 2½d.

Each gulley costs 11.28d. to empty.

Annual cost of refuse collection and disposal per person is in Ipswich less than 3s., and in the average of 110 other towns 4s. 2d.

Each dustman makes 39,450 calls per year, 759 calls per week, 138 calls per day.

The production of refuse works out at 6½ lbs. for each person every week, which is collected and destroyed for .68 pence.

H. PARISH,
Cleansing Superintendent.

CHIEF SANITARY INSPECTOR'S ANNUAL REPORT, 1934.

Mr. H. L. Baty, Chief Sanitary Inspector, reports as follows :—

Analysis of Inspections.	1934
Private Houses	7,050
House to House	470
Houses let in Lodgings	16
Van Dwellings	27
Common Lodging Houses	48
Houses with reference to application for Council House	52
Damp Houses	23
Overcrowded Houses	27
Verminous Houses	444
Total Inspections of Housing conditions ...	8,157
Slaughter-houses	3,326
Butchers Shops	433
Cowsheds	53
Milk Retailers Premises	348
Bakehouses	221
Ice Cream Premises	21
Restaurant Kitchens	35
Cold Stores	3
Fried Fish Shops	237
Total Inspections with reference to Food ...	4,677
Rivers	21
Refuse Dumps	103
Visits after Infectious Disease	481
Shops	309
Factories, Workshops, &c.	296
Drains	406
Schools	78
Places of Entertainment	36
Public Baths	3
Urinals	157
Offensive Trade Premises	277
Stables	47
Piggeries	8
To Investigate Complaints	1,028
Smoke Nuisances	18
At Port	160
Interviews at Office	685
Miscellaneous Inspections	29
Total of other Inspections	4,142
Total Inspections made during the year	16,976

Analysis of Work Carried Out.	1934
Drains inspected	406
Drains smoke tested	56
Drains water tested	64
Drains chemical tested	4
Drains reconstructed	19
Drains repaired	7
New Drains provided	15
Drains unblocked and cleansed	36
Ventilating shafts provided	20
Ventilating shafts repaired	3
New gullies fixed	46
New sinks and wastes provided	13
Water-closet flushing apparatus repaired ...	15
Water-closets repaired	15
New water-closet pans provided	13
New water-closets provided	92
Foul water-closets cleansed	5
Inspection chambers provided	27
Inspection chambers repaired	10
Total Drainage works carried out	866
Roofs repaired	68
Eaves-gutters repaired	23
Rain Water Pipes repaired or renewed ...	6
Coppers repaired	24
Dampness remedied	9
Yards re-paved or yard pavings repaired ...	25
Wash-houses repaired	11
Scullery floors concreted	30
Floors renewed	4
Ash Bins provided	63
General Repairs to Houses	111
Total works carried out to Houses	374

Analysis of Work Carried Out—*continued.*	1934
Urinals provided	2
Urinals repaired or cleansed	10
Dirty houses cleansed	12
Pail closets abolished	1
Trough closets abolished	38
Dead wells abolished	1
Premises limewashed	26
Removal of manure	2
Removal of refuse	10
Removal of animals	1
Total of other works carried out	103
Total works carried out during the year ...	1,343

HOUSING.

1.—Inspection of Dwelling-houses during the year :—

(1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) 7,520

(b) Number of inspections made for the purpose ... 9,263

(2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 470

(b) Number of inspections made for the purpose ... 1,743

(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 112

(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 239

2.—Remedy of Defects during the year without Service of formal Notices :—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 206

3.—Action under Statutory Powers during the year :—

(a)—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930 :—

(1) Number of dwelling-houses in respect of which notices were served requiring repairs ... ... nil.

(2) Number of dwelling-houses which were rendered fit after service of formal notices :—

(a) By owners ... ... nil.

(b) By local authority in default of owners ... nil.

(b)—Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied ... 239

(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—

(a) By owners 13

(b) By local authority in default of owners ... nil.

(c)—Proceedings under Sections 19 and 21 of the Housing Act, 1930 :—

(1) Number of dwelling-houses in respect of which Demolition Orders were made ... ... nil.

(2) Number of dwelling-houses demolished in pursuance of Demolition Orders ... ... nil.

(d)—Proceedings under Section 20 of the Housing Act, 1930 :—

(1) Number of separate tenements or underground rooms in respect of which Closing Orders were made ... nil.

(2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit ... nil.

WATER SUPPLY.

Samples taken from Corporation Supplies	... ...	16
Samples taken from Private Supplies	... ...	4
Samples taken of Trade Effluents	... ...	2
Samples taken from Rivers	... ...	2

INFECTIOUS DISEASES.

Infectious Diseases enquiries made	... ...	481

PROGRESS OF NOTICES.

Preliminary :—		
Served	... ...	264
Completed	... ...	186

Statutory :—
Served 23
Completed 13
Verbal :—
Given 69
Completed 30
Letters Issued 568
Proceedings to abate nuisances 2
Case 1.—Nuisance from burning refuse on tip, etc.—Order made by Court to abate nuisance.
Case 2.—Nuisance from defective roof, etc.—Order made by Court to abate nuisance, and defendant fined £5, including £3 costs.

SHOPS' ACTS.

Visits 445
New Shops registered 12
Transfers 1

FOOD AND DRUGS (ADULTERATION) ACT, 1928.

The following Table shows the samples taken during the year :—

Article.	Samples taken.		Samples genuine.		Samples adulterated.	
	Formal.	Informal.	Formal.	Informal.	Formal.	Informal.
Milk	50	3	42	1	8	2
Cream	1	8	—	6	1	2
Butter	—	24	—	24	—	—
Margerine	—	7	—	7	—	—
Lard	—	5	—	5	—	—
Beef Dripping ...	—	1	—	1	—	—
Potted Meat	—	6	—	6	—	—
Sausage	—	8	—	7	—	1
Dried Milk Powder ...	—	1	—	1	—	—
Tinned Condensed Milk	—	8	—	8	—	—
Tinned Cream ...	—	4	—	4	—	—
Tinned Fruit ...	—	6	—	6	—	—
Tinned Fish	—	4	—	4	—	—
Tinned Baked Beans	—	1	—	1	—	—
Jam	—	2	—	2	—	—
Jelly	—	1	—	1	—	—
Lemon Cheese ...	—	1	—	1	—	—
Coffee	—	4	—	4	—	—
Cocoa	—	2	—	2	—	—
Malt Vinegar ...	—	4	—	4	—	—
Sugar Confectionery ...	—	3	—	3	—	—
Colouring Matter ...	—	2	—	2	—	—
Totals	51	105	42	100	9	5

The following actions were taken during the year :—

Sample No.	Article.	Offence.	Action.
26	Milk	20% deficiency in milk-fat	Proceedings taken against vendor. Case dismissed
60	Milk	1 Adding colouring matter to milk. 2 Selling milk containing colouring matter.	Proceedings taken. Vendor fined £2 in each case and 15/- costs.
62	Cream	Addition of colouring matter	Vendor cautioned.
69	Milk	3% deficiency in milk-fat	Vendor cautioned.
74	Milk	16% deficiency in milk-fat	Proceedings taken against vendor. Case dismissed.
78	Milk	6% deficiency in milk-fat	Vendor cautioned.
106	Milk	5% deficiency in milk-fat	Vendor cautioned.
143	Milk	6% deficiency in milk-fat	Vendor cautioned.

BACTERIOLOGICAL EXAMINATION OF MILK.

Number of samples examined for the presence of bacteria 17

Number of samples examined by animal inoculation for the presence of tubercle bacilli 3

MILK AND DAIRIES ORDER, 1926.

Number of inspections of Dairies and Milk Shops ... 281

Number of inspections of Purveyors of Milk ... 67

Number of inspections of Cowsheds 53

DISEASES OF ANIMALS ACTS, 1894-1927. TUBERCULOSIS ORDER, 1925.

One cow was sent in by a Veterinary Inspector for slaughter during the year. All offals were affected with tuberculosis and condemned.

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The number of pigs' carcases marked in accordance with Part III. of the Regulations was 1,567.

The number of inspections of butchers' shops made during the year was 433.

SLAUGHTER OF ANIMALS ACT, 1933.

Number of slaughtermen granted new licences during the year 65

Number of slaughtermen refused licences during the year 2

SLAUGHTER-HOUSES.

The number of private slaughter-houses in use in the Borough to the middle of June, 1934, was 15. One slaughter-house was out of use after this date, and the number in use at the end of the year was 14.

The number of visits made to the slaughter-houses during the year was 3,326.

The numbers of carcases examined during the year were :—

Cattle	4,587
Sheep	6,900
Pigs	70,545
Calves	529
Kid	1
Total ...	82,562

The numbers of animals examined ante-mortem during the year were :—

Pigs	38,410
Calves	8
Total ...	38,418

MEAT AND OTHER FOOD INSPECTION.

The undermentioned foodstuffs were condemned as unfit for human consumption during the year 1934 :—

Carcases of beef	17
Forequarters of beef	6
Hindquarters of beef	5
Side of beef	1
Brisket, neck and flank of beef	1
Beef (lbs.)	341
Chilled beef (lbs.)	294
Beasts' lungs	173
Beasts' heads	8
Beasts' tongues	3
Beasts' heads and tongues	103
Beasts' livers	96½
Beasts' kidneys	14
Beasts' spleens	3
Beasts' skirts	7
Beasts' tripes	4
Beasts' mesenteries	60
Beasts' intestines	4
Beasts' offals	9
Cow's udder	1
Carcases of mutton	19

Carcases of lamb	5
Forequarters of mutton	4
Shoulders of mutton	2
Mutton (lbs.)	153
Sheep's plucks	5
Sheep's livers	5
Sheep's head	1
Pork (incl. 7,550 heads)	61 tons 17 cwts. 2 qrs. 14 lbs.
Carcases of pork	150
Fore end of pork	1
Hindquarter of pork	1
Pigs' heads	8,058
Pigs' kidneys	5,372
Pigs' livers	2,767
Pigs' plucks	3,542
Pigs' intestines	990
Pigs' spleens	896
Pigs' skirts	853
Pigs' mesenteries	267
Pigs' hocks	83
Pigs' lungs	36
Pigs' hearts	21
Pigs' offals	2
Pigs' shoulders	2
Pigs' legs	33
Carcases of veal	5
Legs of veal	2
Veal (lbs.)	51
Skate (lbs.)	14
Cod fillets (stones)	2
Coal fish fillets (stones)	6
Dried haddock (stones)	3
Kippers (lbs.)	14
Turkey	1
Chicken	1
Potatoes (lbs.)	20
Tinned Foods (tins):—	
Meat	57
Fish	137
Fruit	234
Vegetables	9
Tomatoes	6
Milk	201
Cream	9
Bottled Food (bottles):—	
Tomato juice	1

RATS AND MICE (DESTRUCTION) ACT, 1919

Visits to premises re rat infestations	117

DISINFECTION.

The following table gives the number of rooms, articles of clothing, etc., disinfected, or dealt with, during the year :—

Infectious Diseases :—	
Rooms	590
Bedding	6,692
Tuberculosis :—	
Rooms	172
Bedding	1,038
Vermin :—	
Rooms	367
Bedding	126
Articles from Isolation Hospital ...	12,685
Articles destroyed	360
Library and school books	1,345
Ambulances	83
Articles from Open-air School	306
School rooms	3
Hospital wards	6
Scabies baths given	378

SANITARY CONDITIONS OF MUSIC HALLS AND CINEMAS.

Number of visits paid during performances ... 36

MORTUARY.

During the year 1934, 71 bodies were admitted to the Mortuary. In 55 cases Post-mortem examinations were held.

FACTORIES AND WORKSHOPS, YEAR 1934.

1.—Inspection of Factories and Workshops :—

Premises.	Number of		
	Inspections.	Written Notices.	Occupiers Prosecuted.
Factories (including Factory Laundries)	18	3	—
Workshops (including Workshop Laundries)	258	3	—
Workplaces (excluding Outworkers' Premises ...	10	—	—
Total	286	6	—

2.—Defects found in Factories, Workshops and Workplaces, etc. :—

Particulars.	Number of Defects.			Number of Offences in respect of which Prosecutions were instituted.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts :—				
Want of Cleanliness ...	19	19	—	—
Want of Ventilation ...	1	1	—	—
Overcrowding	—	—	—	—
Want of Drainage of Floors	—	—	—	—
Other Nuisances ...	4	4	—	—
Sanitary Accommodation				
Insufficient	7	7	—	—
Unsuitable or defective ...	—	—	—	—
Not separate for Sexes ...	—	—	—	—
Offences under the Factory and Workshop Acts :—				
Illegal Occupation of Underground Bakehouse (s. 101).	—	—	—	—
Other Offences	2	2	—	—
TOTAL	33	33	—	—

3.—Outwork in Unwholesome Premises, Section 108.

Number of inspections of outworkers' premises, 10.

No occasion was found for the service of a Notice under this Section.

H. L. BATY,
Chief Sanitary Inspector.

PORT OF IPSWICH SANITARY AUTHORITY.
REPORT FOR 1934.

I.—Amount of Shipping entering the Port during the year 1934 :—

		No.	Tonnage.	No. Inspected		No. reported to be defective.	No. of vessels on which defects were remedied.	No. of vessels reported as having or having had during the voyage Infectious Disease on board.
				By the Medical Officer of Health.	By the Sanitary Inspector.			
Foreign	Steamers	109	129,682	5	49	3	1	3
	*Motor ...	43	19,052	—	8	—	—	—
	Sailing ...	1	1,966	—	1	—	—	—
	Fishing ...	—	—	—	—	—	—	—
Total Foreign		153	150,700	5	58	3	1	3
Coastwise	Steamers	443	142,634	—	7	1	—	—
	*Motor ...	393	45,669	—	4	—	—	—
	Sailing ...	1,197	75,383	—	54	—	—	—
	Fishing ...	—	—	—	—	—	—	—
Total Coastwise		2,033	263,686	—	65	1	—	—
Total Foreign and Coastwise		2,186	414,386	5	123	4	1	3

* Includes mechanically propelled vessels other than steamers.

II.—Character of Trade of Port :—

(a) Passenger traffic during the year.—Nil.

(b) Cargo Traffic.—Principal imports : Coal, oil, spirits, grain, timber, road stone, sand, shingle, phosphates, fertilisers, feeding stuffs, and ore. Principal exports : Grain, flour, vegetable oils, sugar, oils, spirits, malt, molasses, feeding stuffs and burnt ore.

(c) Foreign Ports from which vessels arrive : Antwerp (Belgium), Rotterdam (Holland), Hamburg and Stettin (Germany), Dantzig Free State, Kherson and Odessa (Black Sea Ports), White Sea and Baltic Ports, Huelva (Spain), Tunis, Sfax and Casa Blanca (North Africa), Abadan (Persian Gulf), Geelong, Sidney, Melbourne, Wallaroo and Port Victoria (Australia), Vancouver, Quebec and Montreal (Canada), New Orleans and Florida (U.S.A.), Texas Ports, Buenos Aires, Rosario, San Nicholas, Santa Fé, Villa Constitucion (River Plate).

III.—Source of Water Supply :—

(a) For the Port.—Water supply is obtained from the Ipswich Corporation's water mains.

(b) For Shipping.—Shipping in the Dock and at Cliff Quay obtain water from the Ipswich Corporation's water mains. Shipping at the deep water mooring berths in Butterman's Bay use a water boat from Harwich.

(c) Number of water boats and their sanitary condition.—One water boat is used. The sanitary condition is satisfactory.

IV.—Port Sanitary Regulations, 1933 :—

1. Arrangements for dealing with Declarations of Health :— A Declaration form is handed to the Master of a vessel from a foreign port either by the Pilot, the Customs Officer or the Port Sanitary Inspector, and, when filled in, is returned to the office of the Port Sanitary Authority either by the Customs Officer or the Port Sanitary Inspector.

2. Boarding of vessels on arrival :—

   Vessels from foreign ports are boarded by an officer of the Port Sanitary Authority either at the deep water mooring berths at Butterman's Bay, which is situated about six miles down the river, or at Cliff Quay, Ipswich, or at the Ipswich Dock.

3. Notification to the Authority of inward vessels requiring special attention (wireless messages, land signal stations, information from pilots, Customs Officers, etc.) :— Arrangements have been made with the Customs Officers to notify to the Port Sanitary Authority any inward vessel requiring special attention; also, for wireless messages received by local shipping agents, in accordance with the provisions of Article 6 of the Regulations, to be forwarded to the office of the Port Sanitary Authority.

4. Mooring stations designated under Article 10 : (a) within the docks; (b) outside the docks :—

   (a) The established inner mooring station is situated at Cliff Quay, Ipswich.

   (b) The established outer mooring station is situated at the Anchorage at Butterman's Bay.

5. Particulars of any standing exemptions from the provisions of Article 14 :—

   A standing exemption from detention under Article 14 has been granted by the Medical Officer in respect of all unhealthy ships, except those unhealthy on account of cholera, plague, yellow fever, typhus, smallpox or chicken pox.

6. Experience of working of Article 16 :—

No difficulty arose during the year in carrying out the restrictions on boarding or leaving a ship arriving from a foreign port.

7. What, if any, arrangements have been made for :—

(a) Premises and waiting rooms for medical examination.

(b) Cleansing and disinfection of ships, persons and clothing and other articles.

(c) Premises for the temporary accommodation of persons for whom such accommodation is required for the purposes of the Regulations.

(d) Hospital accommodation available for Plague, Cholera, Yellow Fever, Smallpox and other infectious diseases.

(e) Ambulance transport.

(f) Supervision of contacts.

(a) Medical examinations are carried out on board the ship concerned.

(b) On a ship where infectious disease has occurred, disinfection of the infected parts of the ship is carried out by the staff of the Port Sanitary Authority. A cleansing station for persons is established at the office of the Port Sanitary Authority, and further facilities for the cleansing of persons exist at the Ipswich Borough Isolation Hospital and at the Ipswich Smallpox Hospital.

(c) Temporary accommodation is available at the Ipswich Borough Isolation Hospital for persons requiring such accommodation for the purposes of the Regulations.

(d) A smallpox hospital (24 beds) is maintained by the Ipswich Sanitary Authority, and is available for cases of smallpox in the Port. Cases of other infectious diseases are accommodated at the Ipswich Borough Isolation Hospital.

(e) A motor ambulance, and a convertible motor van, are available for transport purposes.

(f) Contacts proceeding to places outside the Borough and Port of Ipswich are notified to the Medical Officer of Health of the district to which they are proceeding. Contacts remaining on the ship are kept under observation daily by an officer of the Port Sanitary Authority.

8. Arrangements for the bacteriological or pathological examination of rats for plague :—
The examination of rats for plague is carried out at the laboratory of the East Suffolk County Council, at Ipswich.

9. Arrangements for other bacteriological or pathological examinations :—
Other bacteriological or pathological examinations are carried out at the Ipswich Public Health Department, the East Suffolk County Council Laboratory, and the East Suffolk and Ipswich Hospital, at Ipswich.

10. Arrangements for the diagnosis and treatment of venereal disease among sailors under international arrangements :—
Diagnosis and treatment are carried out at the Ipswich and East Suffolk Hospital.

11. Arrangements for the interment of the dead :—
Nil.

12. Other matters, if any, requiring or receiving attention :—
Nil.

Cases of Infectious Sickness landed from Vessels :—

Disease.	Number of Cases during the year.		No. of Vessels concerned.	Average number of Cases for previous 5 years.
	Passengers.	Crew.		
Malaria	1	1	2	—
Venereal Disease ...	—	1	1	—

Cases of Infectious Sickness occurring on Vessels during the voyage, but disposed of prior to arrival :—

Disease.	Number of Cases during the year.		No. of Vessels concerned.	Average number of Cases for previous 5 years.
	Passengers.	Crew.		
—	—	—	—	—

V.—Measures against Rodents.

(1) Steps taken for detection of rodent plague.

(*a*) In ships in the port.

(*b*) On quays, wharves, warehouses, etc., in the vicinity of the port.

(*a*) Ships visited by the Port Sanitary Inspector have enquiry and search made on board for unusual mortality of rats or mice.

(*b*) Premises in the vicinity of the Dock and quays are visited from time to time by the Port Sanitary Inspector and similar enquiries and search are made.

(2) Measurss taken to prevent the passage of rats between ships and the shore.

No evidence has been found of rat migration from ship to shore during the year, and special measures, such as rat-guarding mooring ropes, are not taken.

(3) Methods of deratisation of (*a*) Ships, (*b*) Premises, in the vicinity of docks or quays.

(*a*) The Port of Ipswich is not an "approved" port for the purposes of Article 28 of the International Sanitary Convention, 1926. Ships requiring deratisation have therefore to proceed to an "approved" port, the nearest being the ports of London or Dover in the South or the ports of Hull and Goole in the North.

(*b*) Deratisation of premises in the vicinity of the Dock and quays is carried out by the occupier of the premises concerned, the usual method being the use of traps and poisoned baits.

(4) Measures taken for the detection of rat prevalence in ships and on shore.

The usual inspections are made by the Port Sanitary Inspector. It has not been found necessary to take special measures, such as the employment of a full-time rat-catcher.

(5) Rat-proofing.

(*a*) To what extent are docks, wharves, warehouses, etc., rat proof?

(*b*) Action taken to extend rat-proofing.

(i) In ships; (ii) on shore.

(*a*) Many of the buildings, etc., in the vicinity of the Dock and quays are very old and are not considered rat-proof. Recently-erected buildings are designed with rat-proofing in mind and are more satisfactory.

(*b*) Advice is given by the Port Sanitary Inspector to the person concerned where evidence is found of the necessity of extension of rat-proofing of either ships or buildings.

RATS DESTROYED DURING THE YEAR.

(1) On Vessels, (2) On Docks, Quays, Wharves and Warehouses.

An Official Rat-Catcher is not employed by the Ipswich Port Sanitary Authority, and the numbers and species of rats destroyed by the occupiers of the vessels and buildings in the Port are not known.

Measures of Rat Destruction on Plague "infected" or "suspected" Vessels or Vessels from plague infected ports arriving in the Port during the year.

No such vessel arrived in the Port of Ipswich during the year.

VI.—Hygiene of Crews' Spaces.

Classification of Nuisances.

Nationality of Vessel.	No. Inspected during the year.	Defects of original construction.	Structural defects through wear and tear.	Dirt, vermin and other conditions prejudicial to health.
British ...	74	—	2	—
Other Nations...	49	—	1	11

VII.—Food Inspection.

(1) Action taken under the Public Health (Imported Food) Regulations, 1925, the Public Health (Imported Food) Amendment Regulations, 1933, the Public Health (Imported Milk) Regulations, 1926, and the Public Health (Preservatives, etc., in Food) Regulations, 1925 to 1927:—

No action was taken, under the above-mentioned Regulations, in the Port of Ipswich, during the year.

(2) Shell-fish. Information respecting any shell-fish beds or laying within the jurisdiction of the P.S.A., stating whether they are in the opinion of the Medical Officer liable to pollution. Report of any action taken under the Public Health (Shell-fish) Regulations, 1915, or the Public Health (Cleansing of Shell-fish) Act, 1932:—

There are oyster beds or layings within the jurisdiction of the Ipswich P.S.A. No action has been taken during the year under the above-mentioned Regulations and Act. The oyster beds are not liable to pollution.

(3) Number of Samples of Food examined by:—

(*a*) Bacteriologist.

(*b*) Analyst.

No samples of food were examined in the Port of Ipswich during the year.

H. L. Baty,

Chief Port Sanitary Inspector.

County Borough of Ipswich.

School Medical Officer's REPORT

1934.

I.

STAFF OF THE SCHOOL MEDICAL SERVICE.

DECEMBER, 1934.

Medical Staff :

A. M. N. PRINGLE, M.B., C.M. (EDIN.), D.P.H. (CAMB.).
Medical Officer of Health and School Medical Officer.

A. W. GAYE, B.A., M.B., B.C., D.P.H. (CAMB.), M.B., CH.B. (MANC.).
Deputy Medical Officer of Health and Assistant School Medical Officer.

MRS. E. M. EDWARDS, M.R.C.S., L.R.C.P. (ENG.).
Assistant School Medical Officer (Part time).

Dental Staff :

T. A. EDMONDSON, L.D.S., R.C.S., Eng.
School Dental Surgeon.

A. W. T. WARD, L.D.S., R.C.S., Eng.
Assistant School Dental Surgeon.

R. CUTHILL, L.D.S., U. Liverpool.
Assistant School Dental Surgeon.

Nursing Staff :

MISS M. SANDBACH, MISS F. ILETT, and part-time service of four of the Health Visitors of the Public Health Staff.

Clerical Staff :

MISS E. RENACRE.
MISS J. CURTIS.
J. LEAH.

County Borough of Ipswich.

PUBLIC HEALTH DEPARTMENT,
ELM STREET,
IPSWICH.

31st May, 1935.

LADIES AND GENTLEMEN,

I have the honour to present the Report on the Medical Inspection of School Children during the year 1934.

This Report is drawn up in accordance with the recent instructions of the Board of Education.

Those members of the Committee who peruse the Report will be able to arrive at some appreciation of the scope of the labours of the School Medical Service.

The scheme for a branch Clinic on the Nacton Estate has made progress, and it may be hoped that a beginning may be made in the current year.

The coming into being of the Clinic will involve additional staff, medical and clerical.

The medical services will require half the time of one medical officer.

I have to acknowledge gratefully the loyal co-operation of the staff of the School Medical Service.

I tender my thanks to the members of the Education Committee, who have given wholehearted support during the past year.

I have the honour to be,

Ladies and Gentlemen,

Your obedient servant,

A. M. N. PRINGLE.

II.

CO-ORDINATION.

The School Medical Officer is also Medical Officer of Health and therefore no difficulty arises in co-ordinating the work of both Departments. Furthermore, all the health services, including the School Clinic, are under one roof, a position which facilitates the administrative as well as the clinical side of the work.

Complete records of children attaining the age of five years are transferred from the Infant Welfare Centre to the School Clinic, and the information available in such records is a great help in preparing the School Medical Schedules.

At the end of the school life any records of interest from the Public Health point of view, i.e., of Tuberculous or suspected Tuberculous children, Mental Defectives, etc., are transferred to the appropriate Departments.

In short it may be said that the closest co-operation exists between all Public Health Agencies and the School Medical Officer.

III.

SCHOOL HYGIENE.

The Schools in Ipswich consist of all types, good, fair and bad.

The Education Committee has before it at the moment a plan to revise the school accommodation in the Borough, and some of the older premises will be demolished and rebuilt, whilst others will be modernised.

The sanitation of the schools receives the regular attention of the Sanitary Inspectors, whose recommendations are passed through the School Medical Officer to the appropriate authorities.

IV.

MEDICAL INSPECTION.

(a) MEDICAL STAFF.

The Routine Inspection includes the usual three groups, viz., Entrants (5 years old), Intermediates (8 years old), and Leavers (12 years old).

The School Medical Officers visit all the schools in the town for this purpose accompanied by the School Nurses. Lists of children on the registers at the various age groups are forwarded by Head Teachers to the School Medical Officer and a programme of visits is prepared, so that Teachers are warned in good time of the intended visit. Invitations to parents are sent out in every case.

The approved type of schedule is prepared for each child and is carried in a folder throughout school life.

During 1934 the number of children examined at the Routine Medical Inspections was 3,547, or about 33 per cent. of the average attendance.

The number examined was not so high as in 1933, when 3,723 were seen, but was about 100 above the average of the last three years.

(b) NURSING STAFF.

Inspection in the schools is also carried out by the School Nurses, and the principal purpose is to inspect the scholars as to Cleanliness.

Every school is visited and every child seen as many times a year as the staff permits, and the total number of examinations in 1934 was 25,773. The average number of visits per school was 3.5. Appropriate action is taken in all cases of Pediculosis, and such cases are followed up until the desired end is attained.

The Health Visitors employed by the Public Health Department also visit schools when the prevalence of infectious diseases indicates such a course, and their services in this connection are extremely valuable.

(c) INSPECTION CLINIC.

The Inspection or School Clinic is situated in the Public Health Department, and at present the whole borough is served by this one Clinic. The Council are, however, about to consider the provision of a Branch Clinic to serve the Housing Estates in an outlying portion of the town.

The School Clinic is open all day, and a Medical Officer is in attendance every morning session and also on some afternoons for special purposes i.e., Examination of Mental Defectives, Children with Defective Vision, etc.

The Clinic serves an exceedingly useful purpose, and the number of children examined in 1934 was 4,755, and the total examinations was 12,074.

Cases are referred by various authorities, persons and parents, and the Inspection Clinic acts as a clearing house in this respect. Children who need treatment are referred to the family doctor, local Hospital or the Treatment Clinic, or the Tuberculosis Officer or the Sunlight Clinic, and so on.

A large number of the children seen are unfit for school, and exclusions are granted for varying periods.

The following table illustrates the extent to which the School Clinic has been used since its inception :—

Period.	Numbers of Children attending at Clinic.	Total Attendances at Clinic.	Exclusions.	
			Granted.	Not Granted.
Average 1912-1915	—	4,568	1,004	—
1916-1920	1,850	6,611	1,525	325
1921-1925	2,846	10,726	1,930	910
1926-1930	4,193	13,189	2,520	1,673
1931	4,668	12,148	2,239	2,429
1932	4,888	14,229	2,299	2,589
1933	4,756	13,308	2,035	2,721
1934	4,755	12,074	1,898	2,857

V.

FINDINGS OF MEDICAL INSPECTION.

Preliminary.

Routine Medical Examinations of Children in the three age groups (5, 8 and 12 years), together with number of defects found at such examinations :—

	1933.			1934.		
	Boys.	Girls.	Total.	Boys.	Girls.	Total.
Entrants—						
No. examined ...	705	653	1358	641	611	1252
No. of defects ...	99	72	171	100	87	187
Percentage ...	14.0	11.0	12.6	15.6	14.2	14.8
Intermediates—						
No. examined ...	598	592	1190	661	600	1261
No. of defects ...	78	76	154	98	79	177
Percentage ...	13.0	12.8	12.9	14.8	13.1	14.0
Leavers—						
No. examined ...	652	523	1175	505	529	1034
No. of defects ...	58	54	112	83	71	154
Percentage ...	8.8	10.3	9.5	16.4	13.4	14.8
Total—						
No. examined ...	1955	1768	3723	1807	1740	3547
No. of defects ...	235	202	437	280	237	518
Percentage ...	12.0	11.4	11.7	15.4	13.6	14.6

(a) Malnutrition.

196 children were found to require treatment and 159 needed observation.

This shows a definite increase in the numbers as compared with the preceding two years. The increase is due to examinations with a view to the provision of milk.

(*b*) *Uncleanliness.*

A Table giving particulars of the work carried out in this section together with the numbers found unclean is appended :—

	1933.	1934.
No. of visits by Nurses to Schools	105	94
Average per school	3.88	3.48
No. of examinations	24,412	25,773
No. of children found unclean	460	468
Percentage of average attendance found unclean	4.27	4.30
Percentage of total examined found unclean ...	1.88	1.81

Forty-five "24-hours" notices were served.

In no case was it necessary to take legal proceedings, but 8 children were cleansed by the Authority.

112 children were excluded from school for verminous conditions, involving a loss of 1,029 school days. This figure is below the average of the last three years.

It is quite certain that the policy of lending special combs to parents to help in cleansing the head of the child has reduced the period of exclusion.

(*c*) *Minor Ailments and Diseases of the Skin.*

These complaints include Ringworm, Scabies, Impetigo, etc.

The following Table gives the numbers found at routine and special inspections during the past three years :—

	1932.	1933.	1934.
Ringworm :—			
Scalp	8	12	14
Body	11	12	3
Scabies	70	62	27
Impetigo	340	206	151

The number of children excluded in these three groups was 136 and the days lost 3,186.

The number suffering from ringworm remains low. The amount of scabies was half that of the previous year, and impetigo also showed a considerable decrease.

(d) Visual Defects and External Eye Diseases.

Table II. of the Statistical Tables indicates that 392 children were found during the year at Routine or Special Inspections to be suffering from defective vision, whilst another 48 were found to squint and 246 had other eye disorders.

Special Eye Clinics are held each week, and during the year 436 children were examined, the total visits being 772. These figures are not quite so high as in 1933, but were about the average.

The number of glasses prescribed or to be changed was 321, and of that number 308 have been obtained to date—a very satisfactory figure.

The Education Committee's Scheme which provides glasses, either free of cost or on part payment in certain cases, materially assisted in the attainment of this high percentage.

The defects found were :—

Hypermetropia	70
Hypermetropic Astigmatism ...	51
Myopia	74
Myopic Astigmatism	16
Mixed Astigmatism	3
Squint	19
All Others	14

4 children with defective vision were referred to the Eye Specialist at the local Hospital.

(e) Nose and Throat Defects.

The number of children found to require treatment (excluding other conditions usually of a temporary and minor character only) was 167, which was made up as follows :—

Chronic Tonsillitis only ...	59
Adenoids only	27
Chronic Tonsillitis and Adenoids	81

In addition 343 children were marked for observation under this heading, a considerable decrease on the numbers for the two previous years.

(f) Ear Disease and Defective Hearing.

Table II. indicates that the following were referred for treatment during 1934 :—

Defective Hearing	23
Otitis Media	55
Other Ear Diseases	63

These figures are similar to those for the two previous years.

(*g*) *Dental Defects.*

The Report of the School Dental Surgeon is given under the section "Arrangements for Treatment."

733 children were directly referred to the dentist as the result of medical inspection.

(*h*) *Orthopœdic and Postural Defects.*

12 children were discovered requiring treatment, 9 of whom had postural defects and 41 were marked for observation.

(*i*) *Heart Disease and Rheumatism.*

The following cases of Heart Disease were discovered at Routine Medical Inspection or at the School Clinic during the year :—

Organic	...	6	for treatment,	16	for observation.
Functional	...	9	,,	,,	95	,,	,,

There were 2 cases of Rheumatism in whom no heart lesion was discovered.

(*j*) *Tuberculosis.*

The number of cases falling into this group during 1934 was small and are given as under :—

Pulmonary Tuberculosis	...	9
Non-Pulmonary ,,	...	14
Suspected ,,	...	25

(*k*) *Other Defects and Diseases.*

The figures are much the same as in the previous two years.

VI.

FOLLOWING UP.

Following up defects found at previous Medical Inspections is carried out by the School Medical Staff and School Nurses.

The number of children seen during 1934 was 2,223, and the examinations totalled 2,590. These examinations are carried out at school at the same time as Routine Medical Inspection.

The School Nurses also followed up absences from school reported by Head Teachers.

In special cases the Nurses also visit the child at school and (or) in the home.

VII.

ARRANGEMENTS FOR TREATMENT.

The Local Authority undertakes at the School Treatment Clinic or by arrangement with other Authorities, treatment as under :—

(a) Minor ailments at School Clinic.
(b) Dental defects at the Dental Clinics
(c) Visual defects at the Eye Clinic
(d) Artificial Sunlight treatment at the Public Health Department.
(e) Surgical treatment of Tonsils and Adenoids at the East Suffolk and Ipswich Hospital.
(f) X-Ray treatment of Ringworm at the same Institution.
(g) Tuberculous or suspected Tuberculous children at Santorium or Hospital.

(a) Minor Ailments Treatment Clinic.

This Clinic has been established for many years and deals with all types of minor ailments.

The undermentioned Table gives the numbers of children treated and the diseases or defects dealt with.

Disease or Defect.	1931	1932	1933	1934
Number of children treated ...	912	852	845	689
Total visits paid	3,692	4,043	3,980	3,234
Ringworm—Scalp	1	—	3	1
Skin	2	7	8	4
Scabies	28	22	46	25
Impetigo	111	71	59	22
Other Skin Diseases ...	217	216	184	100
Minor Eye Defects	116	82	107	113
Minor Ear Defects	13	10	14	16
Nose and Throat Defects ...	13	12	13	5
Minor Injuries	255	285	281	266
Miscellaneous	156	149	130	137
Total	912	854	845	689

The number of children treated during the year was considerably below the average and the falling off was spread over most of the diseases dealt with.

The Authority has an arrangement with the local General Hospital for the X-Ray Treatment of Ringworm at a cost of £2 2s. 0d. per case, treated to a successful conclusion.

The number so treated was very small and last year only 4 cases were referred.

Cases of Scabies receive approved baths (chiefly sulphur) at the Disinfecting Station attached to the Public Health Department. 358 baths were given during the year and nearly 3,000 articles of clothing were disinfected at the same time.

Minor Eye Defects included children with Blepharitis, Conjunctivitis, Keratitis and Corneal Ulcers.

Minor Injuries.—All children injured in schools or playgrounds are referred first of all to the Treatment Clinic, and if the injury is severe the patient is transferred at once to the local Hospital.

(*b*) *Dental Defects.*

The following is the report of Mr. T. A. Edmondson, the Senior School Dental Surgeon.

REPORT ON THE WORK OF THE SCHOOL DENTAL DEPARTMENT FOR THE YEAR 1934.

ROUTINE WORK.

During the year 27 Elementary and the Northgate Schools were visited, the number of Departments being, viz., Infants 11, Girls 9, Boys 10, Mixed 4 and Junior 8.

The teeth of 10,405 children were examined, 8,687 re-inspections and 1,718 first inspections.

The following Table gives details of ages :—

Year of Inspection.	Ages of Children—Routine.											Total.		
	5	6	7	8	9	10	11	12	13	14	15	Routine.	Non-Routine.	Total Inspected
1933	922	946	1058	1087	1073	1141	1116	1309	1302	376	249	10579	—	10579
1934	1034	1076	952	1022	1005	1027	1074	1756	1791	517	206	10405	—	10405

Of the total number inspected only 1,610, or 15.47 per cent., had every tooth perfectly sound, whilst 3,226, or 31 per cent., had mouths containing 8,368 septic teeth, an average of 2.59 each, as witness the following Table :—

Year.	Percentage of Children having septic teeth.	Average number of septic teeth per child.	Percentage having "All-sound" teeth.
1933	31.11	2.59	15.14
1934	31.00	2.59	15.47

Of the total number inspected only 4,926 or 47.34 per cent., had all the permanent teeth present in the mouth perfectly sound, whilst 4,192, or 40.28 per cent., had decayed permanent teeth which were savable.

The following comparative Table gives the necessary details :—

ear.	Number of Permanent Teeth Decayed Savable.												Total No. of children with decayed permanent teeth savable.	Total No. of Decayed Perm. teeth savable.	Percentage of children examined.
	1	2	3	4	5	6	7	8	9	10	11 and 12	Over 12			
933	1,638	1,460	698	443	93	39	22	10	2	2	—	—	4,407	9,395	41.65
934	1,641	1,399	635	394	76	34	8	2	3	—	—	—	4,192	8,603	40.28

7,886 permanent teeth filled in previous years were found artificially sound.

The next Table gives details regarding children selected for treatment :—

Year.	Children Inspected.	Selected for Treatment.	Percentage Selected.	Extractions only.	Fillings only	Fillings and Extractions.	Dressings only.
1933	10,579	6,856	64.80	35.45	39.86	23.03	1.66
1934	10,405	6,687	64.26	36.17	40.71	22.36	.76

During the year 6,687 letters were sent to parents inviting consents to treatment; of these 6,363 letters were returned, 57.51 per cent. consents, and 42.49 per cent. refusals.

The following Table indicates the variation in the percentage of "Consents to treatment" :—

Year.	Selected for Treatment.	Percentage of consents
1933	6,856	55.8
1934	6,687	57.51

I am able to report a slight increase in the number of "Consents." Intensive efforts are being made to obtain more "Consents to treatment" List of "Refusals" are handed to our Health Visitors, who, by reasoning with parents in their homes, are able to persuade some of them to change their minds and consent to the necessary treatment.

The last Table indicates teeth extracted and the number of fillings :—

Year.	Children Treated.	Teeth Extracted.			Number of Fillings.		
		Temporary.	Permanent.	Total.	In Temp. Teeth.	In Perm. Teeth.	Total.
1933	4,269	6,034	1,161	7,195	262	4,579	4,841
1934	4,544	5,967	1,220	7,187	241	4,740	4,981

It will be noticed that, so far as permanent teeth are concerned, 161 more fillings were done than in the previous year.

SUMMARY OF WORK IN 1934.

The following are tabulated details of work done during the year :—

Number of schools visited	28
,, ,, visits to schools	114
,, ,, departments visited	42
,, ,, half-days devoted to inspection and talks to parents	124
,, ,, mouths examined at dental inspection	10,405
,, ,, children selected for treatment	6,687
,, ,, letters sent	6,687
Actual number of children treated	4,544
Number of attendances made	6,596
,, ,, appointments made	7,244
,, ,, appointments broken...	1,496
,, ,, amalgam stoppings in permanent teeth	2,896
,, ,, amalgam and cement stoppings in permanent teeth	1,327
,, ,, cement stoppings in permanent teeth	501
,, ,, root canal treatments	16
,, ,, amalgam stoppings in temporary teeth	38
,, ,, amalgam and cement stoppings in temporary teeth ...	8
,, ,, cement stoppings in temporary teeth	195
Total number of stoppings	4,981
Number of permanent teeth stopped	4,190
,, ,, temporary teeth extracted	5,967
,, ,, permanent teeth extracted	1,220
,, ,, Local Anæsthetic cases	520
,, ,, Nitrous Oxide administrations	2,940
,, ,, sundry dressings in temporary teeth	60
,, ,, sundry dressings in permanent teeth	3,062
,, ,, children for whom advice was sought	412
,, ,, children brought to Clinic who then refused treatment	30
,, ,, children treated who had been treated in former years	2,680
,, ,, talks to parents at schools	10
,, ,, employment cases treated	41
,, ,, artificial crowns fitted	—
,, ,, regulation plates fitted	9
,, ,, dentures fitted	5

The Radiologist at the East Suffolk Hospital kindly took on our behalf five X-Ray photographs of children's mouths.

During the year £114 11s. 9d. was received in payment for treatment from 4,102 children, an average of 6½d. each.

ORTHODONTICS.

This is the name given to that special science which deals with the correction of irregularity of the teeth.

In my previous reports no mention has been made of this particular branch of School Dentistry. But, as a matter of fact, it has been practised continuously since the inception of this Dental Clinic in 1919 as an ordinary matter of routine Dental Treatment. This is a procedure which should be within the compass of all properly qualified Dentists, and, in my opinion, the appointment of orthodontic specialists is a matter more for sorrow than imitation.

The practice of orthodontics aims at producing perfect occlusion, which means all the teeth meeting when the jaws are closed, so as to render possible the perfect mastication of food.

It also greatly assists in improving facial appearance, corrects defects in speech and tends to improve the general health. Since such irregularity of teeth is caused by the fact that many jaws do not develop largely enough to accommodate the teeth in a regular arch, the result is that the arch becomes distorted and some of the teeth are crowded out so as to become useless for mastication because they cannot meet their opponents. These cases can often be rectified between the ages of 10 and 12 by the judicious removal of certain teeth.

There are many cases of dental deformity which cannot be successfully treated without the use of certain appliances which must for a time be continually worn by the patient and periodically adjusted. We began to supply these during the year 1930. They are made to our specification by an outside mechanic, the cost to the patient never exceeding a guinea.

By the end of the year 1934, we had successfully treated 70 cases by means of appliances, and hundreds of cases by the method of judicious extraction.

T. A. EDMONDSON, L.D.S.,

School Dental Surgeon.

(c) *Visual Defects.*

Dealt with in earlier part of the Report.

(*d*) *Artificial Sunlight.*

An artificial Sunlight Lamp and Clinic has been established in the Public Health Department for some years, and deals with children of all ages.

During the year under review, the number of children of school age who received treatment was 68 and they paid 1,164 visits.

The defects for which treatment was given included :—

Anæmia and Debility	25
Catarrhal and Bronchial Infections	5
Enlarged Glands (neck) ...	5
Subnormal Nutrition	5
Tuberculosis Group	7

(*e*) *Surgical Treatment of Tonsils and Adenoids.*

The Education Committee has had, for some years, a working arrangement with the local General Hospital for the surgical treatment of Tonsils and Adenoids.

In cases where an operation is considered necessary, the parent is given a letter to present to the Ear, Nose and Throat Specialist at the local Hospital. The note is returned to the School Medical Officer with the Surgeon's recommendations, and if an operation is considered to be necessary, arrangements are made by the Hospital Authorities to carry out such recommendation.

The Education Committee pays the Hospital the following agreed charges in all cases where the parent is not a member of the Hospital "Contributor's Scheme" :—

Per Visit	3/6
,, Operation	10/-

The Hospital Authorities have now provided special accommodation for this type of case, and it is likely that in future all children under this Scheme will be dealt with as in-patients, as they should be.

The agreed figure is 6/- per day under 10 and 8/- per day over that age, in the case of Non-Contributors only. The total cost to the Committee under this heading in 1934 was £23 11s. 6d.

The following Table gives figures for the last three years :—

	1932.	1933.	1934.
Number of Children referred to Hospital ...	129	121	123
Total attendances (out-patients)	195	115	149
Operations carried out	109	68	67
In-patient days { Over 10	4	17	34
In-patient days { Under 10	28	80	204

(f) X-Ray Treatment of Ringworm.

See "Minor Ailments."

X-Ray treatment has considerably shortened the period of necessary absence from school.

(g) *Tuberculosis or Suspected Tuberculosis.*

The number of school children who were admitted to Institutions during 1934 for the treatment of Tuberculosis or Suspected Tuberculosis is shown below :—

INSTITUTION	Boys.	Girls.	Total.
Ipswich Sanatorium	24	17	41
East Suffolk & Ipswich Hospital (for treatment of Surgical Tuberculosis)	7	5	12
Ipswich Isolation Hospital—			
(a) Pulmonary Tuberculosis ...	—	—	—
(b) Surgical Tuberculosis	1	1	2
TOTAL	32	23	55

VIII.

INFECTIOUS DISEASES.

The close co-operation of the Public Health and School Medical Departments ensures a very complete scheme for detecting and preventing the spread of Infectious Diseases amongst the School Population.

The home of every patient notified as suffering from an Infectious Disease is visited by an Officer of the Public Health Department, who records on a sheet the names of all persons residing therein.

The school children in such a house are excluded from Day and Sunday Schools (Diphtheria 10 days, Scarlet Fever 8 days, if the patient is removed to the Isolation Hospital), and notice is sent to the Education Office to that effect. The Education Office notifies the Head Teachers.

Furthermore, in the case of Diphtheria, swabbing is recommended, and parents may arrange this with the family doctor or can be dealt with at the Health Department.

During 1934 the notifications of Infectious Disease of children of school age and removals to Hospital were as under :—

	Notified.	Removed.
Scarlet Fever ...	301	281
Diphtheria	46	46

Another arrangement which helps considerably is the notification by Head Teachers of absences from school. These cards are passed as soon as received to the Health Visitors, who visit the homes and advise parents.

In cases of minor Infectious Diseases (the non-notifiable group) exclusions are granted as necessary, and leaflets of instruction and advice are left with parents, in all cases where a doctor had not been called in.

The exclusions granted by Health Visitors in the minor Infectious Disease group included the following :—

Measles	720
Chicken Pox	434
Whooping Cough	214

In addition the Health Visitors excluded children for the undermentioned reasons :—

Mumps	594
Tonsilitis, etc.	283
Impetigo, Sores	26
Other Infectious Diseases ...	7
Minor Injuries	6
Other Ailments ...	148

No school or portion of a school was closed during the year on account of the prevalence of Infectious Diseases. School Medical Officers or Nurses visit any schools in which an abnormal number of cases has occurred, and such visit is sometimes accompanied by the swabbing of a class or the close inspection of each scholar as to nasal discharge, etc., etc.

During the year two certificates were given that the attendance of a Department had fallen below 60 per cent. owing to the prevalence of epidemic illness. These two certificates were in consecutive weeks and referred to the same school. The cause in the first week was Mumps and in the second Measles and Mumps.

IX.

OPEN-AIR EDUCATION.

The Certified Open-air School (Whitton) is dealt with under the section "Blind, Deaf, Defective and Epileptic Children."

(*a*) *Playground Classes.*

Four open-air classrooms will be available for use next year on four playfields.

(*b*) *Open-air Classrooms in Public Elementary Schools.*

In two of the more recently built schools it is possible to throw open one or more sides of the classrooms.

(*c*) *School Journeys and Camps.*

Nothing of this sort has been carried out in Ipswich.

X.

PHYSICAL TRAINING

The Report of Mr. W. Tye, the Organiser of Physical Training, is appended :—

IPSWICH EDUCATION COMMITTEE. PHYSICAL TRAINING REPORT FOR YEAR ENDING 31st DECEMBER, 1934.

GENERAL.

This year has been one of particular interest to those interested in the physical education of the children in elementary schools, since it has seen the trying out of the new Syllabus of Physical Training, and also an extensive development of the playing fields owned by the Committee. Both of these, particularly the latter, should have far-reaching effects on the general physique and growth of the children, and it is most desirable that all those connected with their training should take the fullest advantage of improved facilities. There is, however, every indication that the teachers are fully aware of their opportunities, and will do their best to give the children the desired benefits.

Another outstanding feature of the year is the excellent response made by the teachers in attending instructional classes on the new Syllabus of Physical Training. This is further evidence of the teachers' interest in physical education. In fact, there are many signs that modern physical training is now regarded as an integral part of the school curriculum, and that its inclusion will aid in mental and moral, as well as physical development.

1933 SYLLABUS.

The Board's new Syllabus of Physical Training was circulated to the schools immediately after its publication. Judging by the many requests from head teachers for further copies, and their keenness in introducing the new system of training into the schools, the Syllabus can be said to have been well received. To enable the teachers to make the earliest possible acquaintance with the Syllabus the following steps were taken :—

(1) A conference was held with the head teachers.
(2) Demonstrations were given in all the schools.
(3) Teachers' classes were held during the summer term.

The conference served a useful purpose at that juncture, in that it gave both teachers and organisers an opportunity of discussing the means whereby they could introduce the Syllabus in the most effective way. Incidentally also the conference had good effects on the attendance at teachers' classes held later in the year.

The demonstrations in the schools appear to have been appreciated. They were often followed by useful discussion. Also they had the effect of showing how the Syllabus could be adapted to any type of school, and to children of varying ages and development.

Five teachers' classes were held during the Summer and Autumn terms, one for men and four for women. These classes met with an excellent response; 280 teachers attended, that is, approximately 86 per cent. of the teaching staff of the Borough.

The women were divided into four classes, two for teachers of older children and two for younger. This division was beneficial, making it possible for the Organiser to adapt the training more effectively.

The time was mainly spent by the teachers actually trying out the newer exercises and games. These practical periods were followed by lectures, discussions, and occasional demonstrations on the teaching of children. These demonstrations served useful purposes; they showed the importance of good method in teaching, and also indicated the standard of performance that could be reasonably expected from children of varying ages.

Playing Fields.

It is most pleasing to report on the further development and preparation of the Committee's playing fields. Sidegate Lane, which was recently vacated by the Secondary Schools, is now used by the Elementary Schools in the middle of the Borough. As these schools hitherto used the local parks, where games were very difficult to arrange and teach, the teachers and children are appreciating the vastly improved conditions.

The Greenwich, Valley Road and Norwich Road sites, which were more recently acquired, are now receiving treatment. The Valley Road field is fortunately already in partial use—the Central Boys' School is very much appreciating the use of the two football pitches, which were quickly but satisfactorily prepared. When the Greenwich and Norwich Road sites are ready for use, then all the children in the Borough elementary schools, between the ages of 10 and 14, will have access to playing fields, owned and controlled by the Committee. This will undoubtedly be a very great boon to all concerned.

The playing fields are fortunately situated, in that they lie on the outskirts of the Borough, where the population is increasing. Looking ahead, unless the population increases extraordinarily, this ring of playing fields will for all time satisfy the needs of the elementary schools.

Some of the schools situated at long distances from the playing field have been spending, during the nice weather, the whole afternoon there, half the time being devoted to games, and the remainder to some other suitable form of lesson. In such cases the children have derived increased benefit from open-air education, and they have not become so fatigued as by returning to school immediately after their games. The proposed provision of open-air pavilions, such as already exist in the Britannia field, will facilitate this organisation.

On the whole the playing fields are being well looked after by a capable superintendent groundsman, assisted by a hard-working staff. The pitches are well cut and rolled, and are always in readiness for use by the schools.

The following details will be of interest :—

Playing Fields.	Acreage.	State of	Schools visiting.	Number of children visiting.
Britannia Road	10	In use	7	1,063
Priory Heath	4½	..	3	779
Sidegate Lane	10	..	5	958
Wherstead Rd.	9	..	6	847
Valley Road	10	In partial use	1	350
Norwich Road	7	Being prepared		
Greenwich	14	.. ..		
Total	64½		22	3,997

There are at present approximately 4,840 children over the age of 10 attending the elementary schools, and of these as seen above, 3,997 are actually visiting the Committee's playing fields.

SWIMMING.

As in previous years arrangements for swimming instruction were made for all those children in both senior and junior schools who were desirous of learning to swim. Ninety-eight classes of boys and girls attended three of the Borough Swimming Baths during the season. Altogether there were 1,834 children under instruction, each class having one lesson a week. The number asking for instruction is increasing every year. Fortunately there is still further accommodation at the West End and Stoke Baths. It is anticipated, however, that in a not too far distant future the Borough's accommodation for swimming instruction for the schools will be inadequate.

The teaching of the boys is almost entirely undertaken by men teachers from the schools, who in the main are doing good work, both during and after school hours. The girls and younger boys are taught by two specialist instructresses, who for many years have obtained pleasing results. It is interesting to report that some of the men and women teachers have attended special swimming classes during the last season. Their services should be of value to the Committee in their future arrangements.

In the main the children are now visiting the swimming baths nearest their respective schools. With one exception the schools in the Norwich and London Road district are now using the open-air West End Bath, which is appreciated by both teachers and scholars. The younger children from the junior schools are visiting the Fore Street Bath where they are carefully and successfully instructed by Mrs. Damant. Children travelling the longer distances from the more remote schools, such as in the Nacton area, are allowed 'bus vouchers by the Committee.

Swimming tests were held at the end of the season with the following results :—

Learners' Certificates :

Boys	...	...	367
Girls	..	...	318
Total	...	...	685

It is interesting to note that the percentage of passes for boys and girls under instruction was thirty-six and thirty-five respectively—the girls are apparently making striking progress.

During the Summer term approximately 1,000 children were invited from the local schools to view a film on life-saving. The arrangements were carried out by Mr. A. Moffat, the local representative of the Life-Saving Society. The film and Mr. Moffat's lecture were very interesting and instructive, and brought about increased enthusiasm in the schools.

SCHOOLS' SPORTS ASSOCIATION.

I beg to include a report from Mr. P. Basham, the Secretary of the Schools' Sports Association. Obviously this Association is doing some excellent work on behalf of the children's activities after school hours.

ATHLETIC SPORTS.

For the annual sports held 23rd June, 1934, the Suffolk Schools' Athletic Association was the guest of the Ipswich Elementary Schools' Sports Association. Aided by the generosity of the Ipswich Education Committee, we were able to entertain our County friends "right royally." For the free loan of the Copleston Road Playing Field, for the liberal provision of ground equipment (rope, posts, pennants, joists, boards, splines and bunting), for the splendid results achieved by the groundsmen, and for the use of the Britannia Road School, we wish to place on record our profound gratitude and sincere thanks to the Ipswich Education Committee. We appreciate the keen personal interest evinced by H. Armitage, Esq., and thank W. Tye, Esq., for his kindly advice and material help. We also thank our Education Committee for the annual grant of £5 towards competitors' expenses.

It is gratifying to note that in the County Sports the Ipswich entrants won the Boys', Girls' and County Championships.

CONCLUSION.

In conclusion I should like to express my gratitude to all those who have helped to make this year one of substantial progress.

(Signed) W. TYE,
Organiser of Physical Training.

XI.

PROVISION OF MEALS.

(*a*) *Meals.*

Children are supplied with breakfasts, dinners and morning milk free of cost, provided they are necessitous within the meaning of the Education Act. During the year forty children were supplied with meals. All applications are submitted to the School Medical Officer for his recommendations.

(*b*) *Milk Clubs in Schools.*

Every school has its Milk Club, and the one-third pint of Milk for ½d. is an extremely valuable adjunct to the dietary of the growing child.

The numbers fluctuated a good deal, as the undermentioned figures for the last few months of the year indicate :—

Date.	Parents Paying.	Milk paid for by Education Committee.	Milk paid for by P.A.C.	Total
1934.				
October 12th.	6,560	1,067	708	8,335
,, 26th.	5,155	1,086	654	6,895
November 30th.	4,439	1,129	595	6,163

Every care is taken by the Medical Officer of Health to ensure the milk supplied under this scheme is of a very high standard.

XII.

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

(*a*) *Parents.*

Parents are invited by printed notice to attend at the School when their children are to undergo Routine Medical Inspection, but it is not usual for them to be present at Following Up Examinations.

The number of parents attending the Routine examinations was 3,041, or 85 per cent. of the total children examined.

Many also accompany their children to the School Clinic.

Parents are invited from time to time to attend at the schools for lectures by the School Dental Surgeons, and advantage is taken at that time to point out dental defects.

The attendance and co-operation of the parents facilitates all branches of inspection and treatment.

(*b*) *Teachers.*

Without the active co-operation of Teachers, the School Medical Service would function imperfectly, and the thanks of the School Medical and Dental Staffs are due to all members of the Teaching profession who have, during the past year and in some cases for many years, done everything possible to assist the service.

School Attendance Officers are always willing to assist and valuable help has also been afforded by the Voluntary Association for Mental Welfare and the National Society for the Prevention of Cruelty to Children.

XIII.

BLIND, DEAF, DEFECTIVE AND EPILEPTIC CHILDREN.

(*a*) *Blind.*

Table III. gives particulars with regard to the Blind and Partially Blind children.

It will be seen that the Education Committee is responsible for the maintenance of one child at a Certified School for the Blind.

(*b*) *Deaf.*

If the same Table is referred to, it will be seen that 10 Ipswich children are at Certified Schools for the Deaf.

(*c*) *Mentally Defective.*

43 children were examined under this heading during 1934 and in addition 15 cases were re-examined.

The results of the examinations were as follows :—

Classified as :—	Males	Females	Total.
Feeble Minded M.D. ..	9	4	13
Imbeciles	—	4	4
Idiots	—	1	1
Total Certified	9	9	18

Of the remainder 19 were "Dull and Backward," 4 "Backward," 1 Epileptic and 1 Normal.

The following Table compares the figures of 1934 with those of previous years :—

Year.	CLASSIFICATION.														
	Feeble-Minded.			Imbeciles.			Idiots.			Dull and Backward.			Total		
	M.	F.	T.	M.	F.	T	M.	F.	T	M.	F.	T.	M.	F.	T.
Average 1921-1925	18	11	29	2	4	6	—	—	—	20	12	32	40	27	67
1926-1930	10	10	20	4	3	7	—	—	—	13	14	27	27	27	54
1931	16	20	36	5	1	6	—	—	—	13	6	19	34	27	61
1932	8	6	14	—	1	1	2	1	3	14	5	19	24	13	37
1933	5	7	12	1	2	3	1	—	1	2	5	7	9	14	23
1934	9	4	13	—	4	4	—	1	1	11	8	19	20	17	37

Ipswich has a Special School for this type of child at Britannia Road Special School, and the register shows the following figures :—

	Boys.	Girls.	Total.
On Register December, 1933, ...	47	39	86
Admitted during the year	8	1	9
Left during the year	5	14	19
Remaining on Register December, 1934.	50	26	76

I append a report from Dr. A. W. Gaye upon the Britannia Road Special School :—

BRITANNIA ROAD SPECIAL SCHOOL.

During the year there were 8 boys and 1 girl admitted and 5 boys and 14 girls discharged.

The number in attendance at the end of the year was 76 (50 boys and 26 girls), a decrease of 10 as compared with the previous year, and the largest decrease recorded since the school was instituted.

This figure is due to three causes :—

(a) The relatively small number of examinations it was possible to make during the year with a view to ascertaining those requiring this special education.

(b) Children over 14 who have left or been allowed to leave to take up work.

Formerly they have had to stay till 16, there was quite a group of children between 14 and 16, and this has consequently had considerable effect on the numbers in the school.

(c) Non admission of four children certified as requiring the special education provided.

It is unfortunate that the parents concerned have not been brought to a realisation of their duty in the matter and that the children are therefore deprived of the opportunity offered.

The school continues to make good progress, and again a greater average improvement was made.

In the examination of these children it has been noticed that quite a number were left-handed in writing. It is known that certain characteristics are found associated with mentally retarded children (though the correlation is not close in all cases). The actual numbers ascertained were as follows :—

In this school 9 children (nearly 13 per cent.) are left-handed and in addition 3 are left-handed in writing only. An ordinary school of 205 showed 19 left-handed, i.e., just over 9 per cent.

So it appears that left-handed children are more common in this school than in the ordinary elementary school, though of course no very definite conclusions should be drawn from such small figures. It would be interesting, however, to know when a child is left-handed, but is using its right for writing (presumably because he has been made to do so) whether any ill effect has been produced temperamentally or otherwise. Probably the danger of compelling a child to write right-handed has been much exaggerated and the important period comes before school age.

Anyway, a child in this school has been manifestly improved since she was persuaded to use the right hand for writing.

By permission of the Education Committee, an experimental class in domestic work has been held for boys. They are taught simple laundry, cooking and cleaning. They are all keen to attend the classes, and up to the present (after six months working) have shown themselves quite the equal of the girls in this work. A few of the older boys have tried their hands at breadmaking and have done very well.

A knowledge of this class of work should prove useful when the boys obtain work in hotels, etc.

A similar experiment for girls—though not perhaps of the same value—might be interesting, though there would be certain difficulties to overcome in its inception.

The following Table brings up to date the figures given in last year's report. 140 children have passed through the school. The Table shows what has become of them :—

	Boys.		Girls.
In institutions ...	15	... ...	14
Under guardianship ...	1	... ...	1
Occupation centre ...	2	... ...	2
Basketry Class ...	6	Sewing Class ...	3
Married	(1)	... ...	3
Dead	2	... ...	—
Decertified	1	... ...	1
Left the Town ...	2	... ...	5
Unemployed ...	15	.. ..	9
	44		38

Employed

Food (factory or delivery)	12	Domestic work ...	14
Metal Factory ...	6	Grocery & Confectionery	4
Farm and Gardening ...	5	Laundry	2
Furniture and Cabinet-making	5	Factory	3
Miscellaneous ...	6	Nursemaid... ...	1
	34		24
Total ...	78		62

Discounting those who have died, been decertified, and left the town, 47 per cent. of the boys are in employment and 48 per cent. of the girls. This appears a reasonable percentage, seeing that many who have passed through the school have not been of high grade. It is for the high grades that most can be accomplished.

The above result and the continued progress during the year reflects great credit both upon the staff, whose patience seems inexhaustible, and who take an individual interest in each child, and upon the local Mental Welfare Association, who spare no efforts in helping to obtain work for the children on leaving.

A. W. GAYE,

Deputy School Medical Officer.

(d) Physically Defective.

This group includes Tuberculosis, Delicate and Crippled children and children with Heart Disease, and figures with regard to them will be found upon reference to Table III.

Ipswich possesses its own Sanatorium and beds can readily be found for all children requiring them.

Arrangements are also in force with the local Hospital for any orthopœdic work which may be necessary.

The Education Committee also has its own Open Air School at Whitton, a suburb of Ipswich.

The Whitton Open Air School Register gives the following figures :

	Boys.	Girls.	Total.
On Register December, 1933 ...	54	54	108
Admitted during the year ...	17	37	54
Left during the year	20	33	53
Remaining December, 1934 ...	53	56	109

A report by Dr. A. W. Gaye upon the Whitton Open Air School is appended :—

WHITTON OPEN-AIR SCHOOL.

This school has again proved its value in the improved health of the delicate children in attendance. This was amply shown by the increase in height and weight in most cases (monthly records of weight and height are taken) and the increase in energy and vivacity. The Head Mistress reports a definite decrease in signs of lassitude.

The average attendance was considerably better—at one time reaching 90 per cent., the mean percentage being 84, which is a reasonable figure for delicate children, and compares favourably with that in the ordinary schools. Boys attended rather better than girls.

An Open Day was held in July, and an Open afternoon is held each term. The many parents present expressed themselves as well satisfied with their children's progress.

During the year there were 54 admissions (17 boys and 37 girls), and 20 boys and 33 girls were discharged. The number discharged was considerably smaller than in the two preceding years—perhaps partly accounted for by the admission of younger children who require a longer period to recover full vigour.

The following table gives figures similar to those in last year's report :—

	Admissions 1934.	Discharged 1934.
Quiescent Tubercular Disease	11	6
Pretubercular	2	5
Subnormal Nutrition ...	11	20
Anæmia	2	4
General Delicacy	20	5
Other Diseases	8	13
Total	54	53

Admitted 17 Boys. Discharged 20 Boys.
37 Girls. 33 Girls.

Subnormal nutrition and general delicacy continue to provide the greatest number of cases suitable for admission. Quite a proportion of these are post Sanatorium cases, i.e., quiescent tuberculosis.

Selected children are given Cod Liver Oil and Malt Extract with definite benefit.

The year ended by a Christmas Party, much enjoyed by all.

As already remarked the children at this School continue to do well, and this improvement is not only due to the fresh air, sunshine and good meals provided, but is also enhanced by the splendid work of all the Staff, who still show enthusiasm even on foggy days.

Miss Knights left in November to take up a post at Highwood Hospital School.

The School is suffering a still further loss at Easter, when Miss Jackson, the Head Mistress, retires. It may be remembered that it was largely due to her efforts in 1918 that eventually a class for delicate children was formed at her School at Whitton—superseded later by the present Open Air School. She has always taken a special interest —both educational and medical—in the children under her charge, and thanks are due from all—Education Committee, parents and children alike—for her continued efforts on their behalf.

A. W. GAYE,

Deputy School Medical Officer.

(e) *Supervision of Mentally Defective Children not in Special Schools.*

This is performed on behalf of the Education Committee by the Local Branch of the Mental Welfare Association.

Miss C. A. Woolston, the Secretary of the Mental Welfare Association reports :—

"During 1934 we dealt with 13 boys and 12 girls not in Special Schools. Of these 6 boys and 4 girls are still in elementary or private schools and one girl from a county elementary school is in service. Of the remainder 7 boys and 7 girls had previously attended the Special School, but left by permission between the ages of 14 and 16 to take up work.

(f) *After-Care of Mentally Defective Children.*

This is also carried out by the Mental Welfare Association. The Head Mistress of the Special School takes an active interest in those who have left, and the report above gives figures.

Miss C. A. Woolston reports :—

After-care was provided during 1934 as follows :—

Under friendly supervision, 4 boys and 6 girls.

Under statutory supervision, 27 boys and 22 girls—

A Total of 59.

Of this total, 20 boys and 18 girls had employment during the greater part of the year.

11 boys and 8 girls are considered unemployable, but of these 4 boys and 3 girls attend the Association's Basketry and Sewing Class respectively.

2 girls are in Training Homes for service : the report of one is that she will probably be able to earn her living, and of the other that she will always need constant supervision and is of doubtful wage-earning capacity.

XIV.

FULL-TIME COURSES OF HIGHER EDUCATION FOR BLIND, DEAF, DEFECTIVE AND EPILEPTIC STUDENTS.

(a) The Education Committee arrange for the training of these students at Residential Institutions. Each case is considered on its merits after considering the report of the School Medical Officer, any recommendations made by the Ipswich Blind Society in the case of adults, and, where a child is already in an Institution, the report of the Principal of the Institution.

The number of trainees at Residential Institutions during the year under review was—blind 9, cripple 1, epileptic 1.

(b) No courses are maintained by the Authority.

(c) The training of two blind persons was completed during the year, and both are now employed by the Ipswich Blind Society. The training of two other blind persons was discontinued during the year owing to unsatisfactory reports. One of these is now employed by the Ipswich Blind Society and the other is unemployed as he had not received sufficient training to enable him to obtain employment.

XV.

NURSERY SCHOOLS.

There is no Nursery School in Ipswich.

XVI.

SECONDARY SCHOOLS AND OTHER INSTITUTIONS OF HIGHER EDUCATION.

The School Medical Service is concerned with the following Schools :—

Ipswich School.	Aided Higher School for Boys.
High School for Girls.	,, ,, ,, ,, Girls.
Northgate Schools.	Provided Secondary Schools for Boys and Girls.

(1) *Medical Inspection.*

Routine Medical Inspections are carried out at the Ipswich and Northgate Schools and the following Table gives the number of children examined :—

School.	Examined.	No. of Defects Found.*	No. of following Up or Re-examinations.
Ipswich School	71	55	94
Northgate Boys	224	91	143
Northgate Girls	134	52	117
Total	429	198	354

*Excluding Dental Defects.

In addition 42 boys were examined as to fitness for sports.

The defects found, excluding Dental, can be classified as follows :—

Defect.	Ipswich School.		Northgate Boys.		Northgate Girls.	
	Treatment.	Observation.	Treatment.	Observation.	Treatment.	Observation.
Malnutrition	2	7	2	18	—	—
Other Diseases, Skin (Non. T.B.) ...	—	—	1	18	—	1
EYES—						
Blepharitis	—	—	1	—	—	1
Defective Vision	5	2	8	3	13	10
Squint	—	—	—	2	—	—
Other Conditions	—	—	—	1	—	—
EARS—						
Defective Hearing	—	1	—	1	1	—
Other Diseases	—	—	1	1	—	—
NOSE AND THROAT—						
Enlarged Tonsils	1	2	—	4	—	3
Adenoids	—	—	—	2	—	—
Other Conditions	—	1	1	1	—	1
GLANDS—						
Enlarged Cervical	—	3	1	4	—	2
SPEECH—						
Defective	—	—	—	1	—	—
HEART CIRCULATION						
Functional	—	2	—	1	—	8
Anaemia	—	2	—	1	—	—
LUNGS—						
Other Non. T.B. Disease ...	—	1	—	1	—	2
TUBERCULOSIS—						
Suspected T.B. Lungs ...	—	—	2	—	—	—
NERVOUS SYSTEM—						
Other Conditions	—	1	—	1	—	—
DEFORMITIES—						
Spinal Curvature	1	—	—	1	3	—
Other Forms	15	6	2	3	3	1
OTHER DEFECTS	1	2	1	7	—	3
TOTAL ...	25	30	20	71	20	32

R.M.I. and Special Inspections are not carried out at the High School for Girls.

(2) *Following up and Medical Treatment.*

The figures as to "following up" examinations have been given in a foregoing Table.

Free Treatment is afforded by the Committee in Scholarship cases, and for minor ailments in the case of fee-paying pupils.

XVII.

PARENTS' PAYMENTS.

The Education Committee has fixed the undermentioned charges for the treatment of school children :—

Tonsils and Adenoids, operative treatment, 5/- (including operation and subsequent treatment).

Provision of Spectacles and other medical appliances : Cost price.

Dental : 6d. for the first attendance, with a maximum charge of 1/- should further attendance be necessary to complete the treatment required.

Minor Ailments : Free.

The amount collected for the last financial year (1933-34) was £137 11s. 5d.

The scale of charges refer to Public Elementary School Children only. The fees are paid at the School Clinic generally at the same time as treatment is carried out.

So far as fee-paying pupils at Secondary Schools are concerned, the above scale applies, except as under :—

Tonsils and Adenoids, operative treatment 17/- (including operation and subsequent treatment).

Dental : 2/- per attendance.

XVIII.

HEALTH EDUCATION.

No large campaign in this connection was held during the year, as there was no "Health Week."

The following propaganda work was carried out during the year :—

1.—*Dental Demonstration.*

The Dental Board of the United Kingdom arranged demonstrations at each school in the Borough during the period April 10th-27th.

These demonstrations are a valuable addition to the efforts of the Dental Staff to stimulate the interest of the children in the care of their teeth, and the Board are to be congratulated upon their policy in this respect.

2.—"Better Health."

The Public Health Committee deals with 5,000 copies of this useful publication each month, and every school Teacher in the town receives a copy. In addition, 50, 100 or 200 copies are forwarded to each school according to size, for distribution amongst scholars.

3.—Leaflets.

In the early part of the year copies of the Dental Board's leaflet "What about your teeth" were circulated to all Head Teachers requesting copies, so that scholars leaving school might be given a copy.

XIX.

SPECIAL INQUIRIES.

No special inquiries were carried out during 1934.

XX.

MISCELLANEOUS.

(a) Employment of School Children.

Total number of medical examinations during 1934 was 239 (including 4 girls for entertainment licence).

Number passed on first examination ...	191
,, ,, ,, re-examination ...	36
,, re-examined	9
,, withdrawn on re-examination ...	2
,, refused	1
Total	239

An increase of 28 (13 per cent.) on the previous year.

(b) Stammerers.

I append the report received from the Teacher of Stammerers (Madam Ismay Stoton).

REPORT FOR 1934.

STAMMERERS' CLASSES.

During the year 1934 one class which had been held at Clifford Road was transferred to a new centre, Nacton Road, and an additional class was formed at London Road. Altogether 39 boys and 8 girls were included in the five classes held at the four centres—London Road, Clifford Road, St. Helen's and Nacton Road. Each class was held for one hour twice a week. The number on the registers at the end of the year was 41. The attendance was satisfactory.

Because of considerable improvement in their speech, 7 pupils were able to discontinue attendance at the classes. Three others left owing to removal from Ipswich.

Of the total 47 pupils for the year, 13 were cases of defective speech. As the treatment for defective speech is entirely different from that for stammering, it is desirable that the two should not be included in the same class. Since the numbers have increased I thought such segregation might be possible. The matter was considered, but, unfortunately, it was not found possible to arrange for me separate classes for stammering and defective speech. Consequently, I felt some handicap in this respect with mixed and larger classes.

During the year mats and cushions have been provided for the benefit of the stammerers while relaxing.

ISMAY STOTON.

22nd January, 1935.

(c) *Public Elementary Schools and School Population.*

The following Table gives the number of Public Elementary Schools and the approximate number of Elementary School Children :—

	1932.	1933.	1934.
Number of Public Elementary Schools ...	27	27	27
Average number on School Registers ...	11,617	11,839	11,963
Average attendance of children at School	10,381	10,763	10,863

MEDICAL INSPECTION RETURNS.

Year ended 31st December, 1934.

TABLE I.

RETURN OF MEDICAL INSPECTIONS.

A.—ROUTINE MEDICAL INSPECTIONS.

Number of Inspections in the prescribed Groups :—	
Entrants	1,252
Second Age Group	1,261
Third Age Group	1,034
Total	3,547
Number of other Routine Inspections ...	—

B.—OTHER INSPECTIONS.

Number of Special Inspections	6,978
Number of Re-Inspections	6,573
Total	13.551

TABLE II.

A.—RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1934.

Defect or Disease.		ROUTINE INSPECTIONS. No. of Defects.		SPECIAL INSPECTIONS. No. of Defects.	
		Requiring Treatment.	Requiring to be kept under observation, but not requiring treatment.	Requiring Treatment.	Requiring to be kept under observation, but not requiring treatment.
(1)		(2)	(3)	(4)	(5)
	Malnutrition	103	158	93	1
Skin	Ringworm—Scalp ...	1	—	13	—
	Body ...	—	—	3	—
	Scabies	—	1	24	2
	Impetigo	8	3	143	—
	Other Diseases (Non-Tuberculous)	10	20	325	26
Eye	Blepharitis	7	8	43	—
	Conjunctivitis	4	3	78	—
	Keratitis	—	—	7	—
	Corneal Opacities ...	—	—	3	—
	Defective Vision (excluding Squint)	161	138	82	11
	Squint	16	17	13	2
	Other Conditions ...	2	7	83	11
Ear	Defective Hearing ...	17	24	6	4
	Otitis Media	8	5	47	3
	Other Ear Diseases ...	7	10	59	13
Nose and Throat	Chronic Tonsillitis only	22	323	37	73
	Adenoids only	14	26	13	5
	Chronic Tonsillitis and Adenoids	41	16	40	—
	Other Conditions ...	12	21	244	12
Enlarged Cervical Glands (Non-Tuberculous)		1	231	189	37
Defective Speech		1	10	21	3
Heart and Circulation	Heart Disease—Organic ...	3	15	3	1
	Functional	5	89	4	6
	Anæmia	4	18	13	1
Lungs	Bronchitis	1	54	39	—
	Other Non-Tuberculous Diseases	4	99	2	1

TABLE II.—Continued.

Tuberculosis	Pulmonary—Definite ...	—	1	7	1
	Suspected ...	2	6	10	7
	Non-Pulmonary—				
	Glands	1	—	8	1
	Bones and Joints ...	—	1	—	—
	Skin	—	—	1	—
	Other Forms	—	1	—	1
Nervous System	Epilepsy	—	—	2	2
	Chorea	—	—	7	1
	Other Conditions ...	—	10	5	3
Deformities	Rickets	—	—	—	—
	Spinal Curvature ...	1	14	2	1
	Other Forms	3	16	6	11
Other Defects and Diseases (excluding Uncleanliness and Dental Diseases)		45	175	828	41
Total		504	1,520	2,503	281

B.—NUMBER OF INDIVIDUAL CHILDREN FOUND AT ROUTINE MEDICAL INSPECTION TO REQUIRE TREATMENT (EXCLUDING UNCLEANLINESS AND DENTAL DISEASES).

Group.	Number of Children	
	Inspected	Found to require treatment.
(1)	(2)	(3)
Prescribed Groups—		
Entrants	1252	181
Second Age Group ...	1261	169
Third Age Group ...	1034	149
Total (Prescribed Groups) ...	3547	499
Other Routine Inspections	—	—
Grand Total ...	3,547	499

TABLE III.

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

Children Suffering from Multiple Defects—9.

Blind Children.

At Certified Schools for the Blind.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
1	—	—	1	2

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.
—	—	14	—	3	17

Deaf Children.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
10	1	4	1	16

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.
—	—	5	—	—	5

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.
72	5	5	12	94

Epileptic Children.

Children Suffering from Severe Epilepsy.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
1	1	1	—	3

PHYSICALLY DEFECTIVE CHILDREN.

A. Tuberculous Children.

1.—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.
—	3	18	8	29

2. Children Suffering from Non-Pulmonary Tuberculosis.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
3	7	6	7	23

TABLE III.—Continued.

B. Delicate Children.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
105	332	5	—	442

C. Crippled Children.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
3	22	—	8	33

D. Children with Heart Disease.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
6	21	—	1	28

TABLE IV.

RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1934.

TREATMENT TABLE.

Group I.—Minor Ailments (excluding Uncleanliness, for which see Group VI.).

Disease or Defect. (1)	Number of Defects Treated, or Under Treatment During the Year		
	Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
Skin—			
Ringworm-scalp. (1) X-Ray Treatment. If none, indicate by dash	4	2	6
(2) Other	1	7	8
Ringworm, body	3	—	3
Scabies	24	—	24
Impetigo	22	129	151
Other skin disease	100	235	335
Minor Eye Defects— (External and other, but excluding cases falling in Group II). ...	113	114	227
Minor Ear Defects	16	50	66
Miscellaneous— (*e.g.* minor injuries, bruises, sores, chilblains, etc.)	408	589	997
Total	691	1,126	1,817

Group II.—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I.).

Defect or Disease.	Number of Defects dealt with.			No. of children for whom spectacles were			
				Prescribed. (1)		Obtained (2)	
	Under the Authority's Scheme.	Otherwise.	Total	(i) Under the Authority's Scheme	(ii) Otherwise.	(i) Under the Authority's Scheme	(ii) Otherwise.
(1)	(2)	(3)	(4)				
Errors of Refraction (including Squint) (Operations for Squint should be recorded separately in the body of the Report) ...	436	4	440	321	4	308	4
Other Defect or Disease of the Eyes (excluding those recorded in Group I).							
TOTAL ...	436	4	440				

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. (1)				By Private Practitioner or Hospital, apart from the Authority's Scheme. (2)				Total. (3)					
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(4)	(5)
1	5	59	2	—	—	—	—	1	5	59	2	100	167

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and Adenoids.
(iv) Other defects of the nose and throat.

Group IV.—Orthopaedic and Postural Defects.

	Under the Authority's Scheme. (1)			Otherwise. (2)			Total number treated.
	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopaedic clinic. (iii)	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopaedic clinic. (iii)	
Number of children treated	3	—	4	—	—	2	9

Group V.—Dental Defects.

1.—Number of Children who were :—

(i) Inspected by the Dentist :—

Aged :

Routine Age Groups	5	... ...	1,034	
	6	... ...	1,026	
	7	... ...	952	
	8	... ...	1,022	
	9	... ...	1,003	Total 9,597
	10	... ...	1,010	
	11	... ...	972	
	12	... ...	1,100	
	13	... ...	1,120	
	14	... ...	358	
Specials				1,241
Grand Total				10,838

(ii) Found to require treatment 7,476

(iii) Actually treated 4,086

2.—Half-days devoted to :—

Inspection	112	Total 1,281
Treatment	1,169	

3.—Attendances made by children for treatment ... 5,888

4.—Fillings : Permanent teeth ... 3,881 | Total 4,122
Temporary teeth ... 241

5.—Extractions : Permanent teeth ... 1,114 | Total 7,023
Temporary teeth ... 5,909

6.—Administrations of general anæsthetics for extractions 2,859

7.—Other operations :—

Permanent teeth ...	2,090	Total 2,150
Temporary teeth ...	60	

Group VI.—Uncleanliness and Verminous Conditions.

i.—Average number of visits per school made during the year by the School Nurses	3.5
ii.—Total number of examinations of children in the Schools by School Nurses	25,773
iii.—Number of *individual* children found unclean	468
iv.—Number of children cleansed under arrangements made by the Local Education Authority	8
v.—Number of cases in which legal proceedings were taken :—	
(a) Under the Education Act, 1921 ...	nil.
(b) Under School Attendance Bye-laws ...	nil.

A. M. N. PRINGLE,

School Medical Officer.