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Contributors

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County Borough



of Middlesbrough.

HEALTH DEPARTMENT.

Annual Report

AND

Vital and Mortality Statistics

For the Year 1927.

Middlesbrough :

JORDISON & Co., Ltd., PRINTERS, LITHOGRAPHERS, &c.

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COUNTY BOROUGH OF MIDDLESBROUGH.

Members of the Sanitary Committee, 1927-8.

Chairman—ALDERMAN A. MATTISON.

HIS WORSHIP THE MAYOR (ALDERMAN T. G. POOLE, J.P.)

ALDERMEN W. J. BRUCE, O.B.E., J.P., G. A. CAREY, J. FORBES, J.P.,
J. RODDY.

COUNCILLORS MRS. MARION COATES-HANSEN, A. ELSTROP, MRS. H. GUTHRIE,
H. D. LEVICK, M.B., J.P., H. M. LEVICK, M.D., S. LEVY, A. MARSHALL,
T. MEEHAN, J. NUGENT, J. G. PALLISTER, W. E. PRICE, P. SULLIVAN, A. TODD,
J. G. WADDINGTON, A. WEATHERHEAD, M.B.E., J.P. J. WELCH.

Members of the Sanatorium Committee, 1927-8.

Chairman—COUNCILLOR J. G. PALLISTER.

HIS WORSHIP THE MAYOR (ALDERMAN T. G. POOLE, J.P.)

ALDERMEN W. J. BRUCE, O.B.E., J.P., J. FORBES, J.P., A. MATTISON,

COUNCILLORS F. CAREY, MRS. MARION COATES-HANSEN, A. COOPER, H. D. LEVICK,
M.B., J.P. H. M. LEVICK, M.D., A. MARSHALL, T. MEEHAN, S. A. SADLER, J.P.,
P. SULLIVAN, J. WELCH.

Members of the Maternity and Child Welfare Committee, 1927-8.

Chairman—COUNCILLOR HANNAH GUTHRIE.

HIS WORSHIP THE MAYOR (ALDERMAN T. G. POOLE, J.P.)

MRS. M. E. HEWITSON, MISS PURVIS, MRS. KEDWARD, MRS. BRUCE, MRS. STANLEY
A. SADLER, MRS. THOMAS, MRS. TRURAN, DR. J. INKSTER.

ALDERMEN A. CAREY, J. FORBES, J.P., T. J. KEDWARD, A. MATTISON, J. RODDY.

COUNCILLORS G. ALEXANDER, K. BRIGGS, J. WESLEY BROWN, F. CAREY, MRS. MARION
COATES-HANSEN, T. CURRAN, J. HAMILL, J.P. H. D. LEVICK, M.B., J.P.,
H. M. LEVICK, M.D., P. SULLIVAN, J. WELCH.

STAFF.

Medical Officer of Health and Superintendent of Hospitals :

‡CHAS. V. DINGLE, M.D., B.HY., D.P.H.

Assistant Medical Officer of Health :

WILLIAM L. TULLIS, M.D., CH. B., D.P.H. (resigned 25/2/28).
W. S. WALTON, M.B., B.S., B. HY., D.P.H. (appointed Feb., 1928).

Tuberculosis Officer :

‡F. J. HENRY, M.C., M.B., F.R.C.S., D.P.H. (Barrister-at-Law).

Maternity and Child Welfare Medical Officer :

‡MRS. GRACE H. GIFFEN DUNDAS, F.R.C.S., D.P.H.

Venereal Diseases Medical Officer (Part Time) :

‡ARTHUR BRYANS, L.R.C.P. & S. (Ed.), L.R.F.P.S. (GLAS.).

Chief Sanitary Inspector :

*‡‡THOMAS P. DIXON, MEM. S.I.A., MEM. R.S.I.

Assistant Sanitary Inspectors :

‡A. W. LUCAS (Factories, Workshops, &c.)	*‡S. E. ELLIS (Food and Drugs).
*‡J. N. MARTIN.	*‡H. WHITFIELD.
‡M. GUTHRIE.	*‡A. C. WALKER.
*‡R. LEGGATT.	‡H. WATSON.

Health Visitors :

‡‡MISS L. BELL (Supervisor).	‡§MISS M. NESBITT.
‡‡MISS M. A. BLAKE.	‡§MISS R. SPITTEL.
‡‡§MISS M. VEITCH.	‡§MISS A. G. TODD.

Nurses :

‡MISS M. OWEN (Tuberculosis).	‡MISS STOCKTON (Tuberculosis).
‡MISS D. E. HALL (Tuberculosis).	‡MISS G. VAUGHAN (Measles).

Matrons :

MRS. B. GARDNER : Fever, Smallpox and Tuberculosis Hospitals.
‡‡MISS ANNIE DAVIES : Municipal Maternity Home and Children's Hospital.

Clerks :

‡JOHN W. RAWDON.	GEORGE DANNELL (resigned July, 1927)
R. JAMES.	‡MISS ANDERTON.
P. E. TAGGART.	‡MISS H. DANBY.
J. E. DODSWORTH.	MRS. C. WALLER.
T. E. PETERSON	MISS E. ANDREWS.
(Appointed July, 1927).	(Appointed July, 1927).

Foremen Scavengers :

G. STEVENSON.	T. WILSON.
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*Meat Inspector's Certificate of R.S.I.

‡Sanitary Inspector's Certificate of R.S.I.

‡Salaries rank for Exchequer Grant.

§Certificate of Central Midwives' Board.

||Health Visitor's Diploma, Board of Education.

¶State Registered Nurse.

THE HEALTH DEPARTMENT,
MUNICIPAL BUILDINGS,
MIDDLESBROUGH,

AUGUST, 1928.

TO THE CHAIRMAN (ALDERMAN A. MATTISON) AND
MEMBERS OF THE SANITARY COMMITTEE.

LADIES AND GENTLEMEN,

I have the honour to present for your consideration my Twenty-Ninth Annual Report on the Health of the County Borough of Middlesbrough.

During the year 1927 the health of the population of Middlesbrough has been normal. Owing to a low estimation of the population by the Registrar General, the death rate is probably higher than it should be. There has been a satisfactory decrease in the infantile mortality rate. With the exception of the prevalence of measles the incidence of infectious disease has not been excessive and the mortality rates from these compare very favourably with those for other County Boroughs.

Special reference is made in this Report to two classes of disease namely : Respiratory and Malignant, these together with Tuberculosis and Heart Disease form the chief causes of death. The care of infants and young children is receiving special attention. Schemes for Orthopoeic and Violet Ray treatment have been instituted during the year.

Every effort is being made to insure of a good, clean and pure milk supply to the town and it is confidently anticipated that this will have a beneficial effect on the health of the children and especially so as regards Tubercular disease of the bowels and glands.

The provision of more adequate Bathing accommodation both for those who have no baths in their houses and also of swimming baths is urgently required.

Little progress has been made with the scheduled insanitary areas. The Dacre Street Area has now been demolished and has revealed the difficulty of re-housing those displaced. A probable solution of this problem may be by an improvement scheme whereby part of the houses in an insanitary area can be re-modelled and retained, and part demolished.

I have the honour to be,

Your obedient Servant,

Charles V. Dingle

Medical Officer of Health.



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ANNUAL REPORT

of the Medical Officer of Health for 1927.

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres) 4,323 (including 173 acres of tidal land).

Population (Census 1921, and estimated 1927):—

Census 1921	..	..	..	131,070
Estimated 1927	..	..	..	133,600
Number of Inhabited Houses (1921)	..	..	..	25,541
Number of Families or Separate Occupiers (1921)	..	..	..	27,891
Rateable value	..	..	..	£656,132
Sum represented by a penny rate	..	..	..	£2,235

Extracts from the Vital Statistics of the year:—

Births: Legitimate,	Male	..	1,562	Female	..	1,433	Total	..	2,995
Illegitimate,	Male	..	78	Female	..	67	Total	..	145

Birth-rate, 23.50 per 1,000.

Deaths, 1,776. Death-rate, 13.29 per 1,000.

Number of women dying in, or in consequence of, Childbirth:—

From Sepsis	..	..	..	3
From other causes	..	..	..	9

Deaths of Infants under one year of age per 1,000 births:—

Legitimate, 85.	Illegitimate, 2.	Total, 87.
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Deaths from	Measles (all ages)	39
do.	Whooping Cough (all ages)	4
do.	Diarrhoea (under 2 years)	35

VITAL STATISTICS.

Population.—At the Census 1921, the population enumerated was 131,070, consisting of 66,166 males and 64,904 females. For the past two years the Registrar General's estimate for the Borough of Middlesbrough has been 133,600, this is approximately what it was in 1921. During this period the births have exceeded the deaths by about 9,000, and I am of opinion that the population of the town is considerably higher than the estimate.

Births.—The number of Births registered during 1927 was 3,149, the nett births being 3,140, males 1,640, females 1,500, giving a birth rate of 23.50 per 1,000 of the estimated population. The birth rate still shows a progressive decrease.

The average birth rate for the past five years being :

Middlesbrough	25.6 per 1,000 pop.
England and Wales	18.2 per 1,000 pop.

The notified births totalled 2,988, being 161 less than the registered births.

Illegitimate births numbered 145, being a decrease on the previous year.

Deaths.—The number of Deaths registered in Middlesbrough during 1927 was 1,933, giving a crude death rate of 14.46 per 1,000 of the estimated population. The nett deaths of persons belonging to the district was 1,776, giving a death-rate of 13.29 per 1,000; this corrected by the factor for standardising the rate for comparison with that for England and Wales is 14.20 per 1,000. The rate for England and Wales during 1927 was 12.3 per 1,000.

The average death rate per 1,000 population during the past five years has been 14.4 against 17.08 in the previous five years.

The death rate per 1,000 estimated population in the various districts of the Town during 1927, were :—

WARDS.				WARDS.			
Ayresome	..	..	9.41	Grove Hill	..	..	10.48
Acklam	..	..	11.47	Linthorpe	..	..	9.08
Cannon	..	..	14.04	Newport	..	..	18.82
Cleveland	..	..	12.04	Ormesby	..	..	12.34
Exchange	..	..	13.93	St. Hildas	..	..	21.42
				Vulcan	..	..	13.24

Principal Causes of Death during 1927.

Disease	Proportion per 1,000 deaths from all causes.								
	England & Wales					Middlesbrough.			
	1925	..	1925	1926	1927	1925	1926	1927	
Measles	11	..	26	2	21				
Influenza	27	..	19	19	37				
Pulmonary Tuberculosis	68	..	87	81	86				
Cancer	110	..	66	95	82				
Heart Disease	135	..	82	85	104				
Bronchitis	75	..	85	81	70				
Pneumonia	78	..	167	133	150				
Premature Births and diseases of									
Early Infancy	42	..	62	62	57				

Respiratory Diseases.

The following Report upon the incidence and mortality from Respiratory Diseases was presented to the Sanitary Committee in September, 1927. A scheme for the treatment at West Lane Hospital of young children under five years of age, suffering from Broncho Pnuemonia, was submitted to the Ministry of Health, but did not receive the necessary sanction.

Respiratory Disease in Middlesbrough.

(See Annual Reports for 1925 and 1926).

A Short Historical Review.

For as long as reliable records have been kept we find that the mortality from Respiratory Diseases in Middlesbrough has always been high. In 1888 there was a severe outbreak of what was then known as "Middlesbrough Pneumonia." In that year 37% of all the deaths occurred from Respiratory Disease, chiefly Pneumonia. Epidemics of this form of Pneumonia occurred also in 1899 and 1900, this latter year making the peak of the invasion, which then steadily declined, altering in type and severity until the 1918 Influenza epidemic again brought the respiratory death-rate to very high figures. Since 1918 there has been a marked improvement in the mortality rate from Pneumonia, but not in the Broncho-Pneumonia rates. The old and extremely fatal type of Acute Pneumonic Fever (Middlesbrough Pneumonia) is now rarely met with.

Present Position.

Whereas in the earlier years 37% of the total deaths in Middlesbrough were due to Respiratory Diseases, we find even to-day that these diseases cause 27% of the total deaths. During the years 1921 to 1926, inclusive, there were 11,644 deaths registered in Middlesbrough and of these 3,176 were from Respiratory Disease. In other words more than one out of every four deaths is still due to this cause.

Respiratory Death Rates in other Areas.

Compared with the County Boroughs of England and Wales, over a period of recent years, the rates in Middlesbrough are:—

	Middlesbrough	County Boroughs England & Wales.
All Respiratory Diseases ..	3.74 per 1,000 pop.	2.17 per 1,000 pop.
Bronchitis	1.11 ..	0.94 ..
Pneumonia	2.42 ..	0.96 ..

that is nearly three times as great a Pneumonic death-rate.

If we divided England and Wales into areas North, Midland and South, we find the following comparison :—

Death rate per 1,000 population.

	South.	Midland.	North.	Middlesbrough.
All Respiratory Diseases	1.74	2.14	2.73	3.74
Bronchitis	0.84	1.02	1.22	1.11
Pneumonia (all forms)	0.73	1.04	1.39	2.42

Here, again, Middlesbrough is 1 per 1,000 higher as regards death rates from Respiratory Diseases than the rest of the North of England and 1.1 per 1,000 higher from Pneumonia.

Coming to local and similar towns and comparing the rates we find that Middlesbrough has the second highest respiratory death rate and the highest Pneumonic death rate.

1921 to 1925.

TOWN.	Mean death rate from Respiratory Disease per 1,000 population.	TOWN.	Mean death rate from Pneumonia per 1,000 population.
Hartlepool	4.32	Middlesbrough ..	2.56
Middlesbrough	3.90	Jarrow	2.02
Sunderland	3.27	Stockton	1.89
Jarrow	3.22	Hartlepool	1.89
Stockton	3.04	Gateshead	1.58
Gateshead	2.85	Eston	1.55
West Hartlepool	2.76	Sunderland	1.53
Hull	2.64	West Hartlepool ..	1.52
Newcastle	2.59	Newcastle	1.50
South Shields	2.55	Tynemouth	1.37
Eston	2.34	Hull	1.34
Darlington	2.25	Darlington	1.34
Tynemouth	2.17	South Shields ..	1.17

Here, again, as regards Pneumonia, Middlesbrough shows a bad record which is to a much less extent shared by other towns on the Tees estuary as compared with towns on the North-east coast generally.

Further Analysis of the Middlesbrough Respiratory Disease Figures.

Looking at the Middlesbrough death rates from Respiratory Diseases and comparing them with those for the rest of the Northern Area of England (which is a fair comparison)

we find that the increased death rate of one per 1,000 population is entirely made up of increased deaths from Pneumonia (all forms). The death rate from Bronchitis being slightly lower in Middlesbrough.

Pneumonia (all forms).—This includes (1) Pneumonia, Lobar Pneumonia, Influenzal Pneumonia and (2) Broncho-Pneumonia.

During the years 1921 to 1926 there were 821 deaths registered in Middlesbrough from the first group and 1,156 from the second group.

Of the 821 in group (1) 168 were under 5 years of age, this being equal to 20.4%.

Of the 1,156 in group (2) 966 were under 5 years of age, being equal to 83.5%.

Showing that by far the greater number of deaths from Broncho-Pneumonia are those of young children.

There are certain Infectious Diseases in which Respiratory Disease is a frequent complication and is the general cause of death. These are Whooping-Cough and Measles in infants, and Influenza in adults. It is, therefore, usual to find that years in which high death rates from Pneumonia and Broncho-Pneumonia occur are years in which one or other of these diseases have been prevalent. This is shown by the following table:—

Year.	Pneumonia.		Broncho-Pneumonia.		Influenza.		Measles.		Whooping Cough.	
	Deaths		Deaths		Deaths		Deaths		Deaths	
	Under 5 years	Total Deaths	Under 5 years	Total Deaths	Under 5 years	Total Deaths	Under 5 years	Total Deaths	Under 5 years	Total Deaths
1921 ..	34	155	122	140	2	25	47	48	13	13
1922 ..	37	172	185	211	31	81	8	9	35	35
1923 ..	29	127	99	126	4	18	77	78	Nil	Nil
1924 ..	26	141	302	338	45	141	23	25	74	76
1925 ..	18	135	152	198	5	39	49	53	17	19
1926 ..	24	91	106	143	4	34	4	4	53	54

General Remarks.

Further improvement in the death and infant mortality rates in the Borough of Middlesbrough depends to a very great extent on the decrease of deaths from Respiratory Disease.

Infantile Mortality.

The nett number of deaths under one year of age during 1927 was 274, equal to an infant mortality rate of 87 per 1,000 births. The steady improvement in the Infant Mortality in Middlesbrough is being maintained.

Infant Mortality Rates in the various Wards.

Districts.	Deaths per 1,000 Births.		
	1920-25 (Mean)	1926	1927
Ayresome	97	68	56
Acklam	86	57	38
Cannon	118	114	107
Cleveland	108	95	82
Exchange	97	120	61
Grove Hill	73	60	64
Linthorpe	71	64	77
Newport	126	121	129
Ormesby	125	67	95
St. Hildas	148	142	128
Vulcan	121	133	88

For further particulars relating to Infant Mortality see the Report of the Maternity and Child Welfare Medical Officer, pages 73 to 79.

General Provision of Health Services for the Area.

HOSPITALS PROVIDED BY THE LOCAL AUTHORITY.

- A.** (1) **FEVER : West Lane.**—There are 200 beds for the usual notifiable diseases.
 (2) **SMALLPOX : Hemlington.**—There are 100 beds.
- B.** (1) **TUBERCULOSIS : West Lane.**—30 beds and 3 huts.
Broomlands—6 beds are retained for surgical tubercular cases.
- (2) **MATERNITY : Municipal Maternity Hospital, Park Road North.**—There are 19 beds for Maternity cases.
- (3) **CHILDREN'S HOSPITAL : Children's Municipal Hospital, Park Road North.**—There are 15 beds for infants under 5 years of age.
- (4) **OTHER : Children's Cripples Home.**—The R. C. Davison Holiday Home at Danby, supported by voluntary contributions, to which cripple children are sent. About 100 are received for 3 weeks each in the summer months.

INSTITUTIONAL PROVISION FOR UNMARRIED MOTHERS, &c.—There is provision for these at the **Holgate (Guardians) Hospital**, and at the **Holy Cross Refuge**. The latter is a Church of England Institution and receives a grant from the Local Authority. It provides for unmarried mothers.

HOMELESS CHILDREN : Guardian's Children's Homes : Nazareth House (R.C.) 206 : Holy Rood Orphanage (C.E.) 16 : and a branch of Dr. Barnardo's Homes (Undenom.) 24.

Cleansing Station, 52, Bridge Street West.—This is a small Cleansing Station, fitted with a steam disinfecter and baths, for dealing with verminous persons.

Ambulance facilities.—

- (1) For infectious cases there are 3 motor ambulances.
 (2) For non-infectious cases and accidents there are two motor ambulances provided by the Town Council.

CLINICS AND TREATMENT CENTRES.

(a) **Maternity and Child Welfare Centres** (Consultation and Treatment) :—

NAME OF CENTRE.	HELD AT	ORDINARY CHILD WELFARE MEETINGS.	
(1) East Centre	5, The Newlands	Mondays ..	2 p.m.
(2) Cannon Centre	Settlement Hall, Church Street	Mondays ..	10 a.m.
		Tuesdays ..	2 p.m.
(3) American Red Cross Centre	Market Place	Wednesdays	2 p.m.
(4) Settlement Centre	Settlement Hall, Church Street	Thursdays ..	2 p.m.
(5) North Ormesby Centre	Mount St. Mary, North Ormesby	Fridays ..	2 p.m.
(6) Grove Hill Centre	The Institute	Tuesdays ..	10 a.m.

Each of the above Centres has a special Ante-Natal Clinic once each month.

At all the Centres "Toddlers" from 1 to 5 years are received at each Session and are examined and supervised.

These Centres have Voluntary Helpers working under the direction of the Medical Officer for Maternity and Child Welfare and the Health Visitors.

(See Report on Maternity and Child Welfare).

(b) **Day Nurseries** : Nil.(c) **School Clinic** :

This is held at 52, Grange Road W., daily from 9 a.m. to 12 noon for consultations and treatment of minor ailments, and every Saturday morning for refractions.

(d) **Dental Clinic** :

Held at 52, Grange Road West daily, and is attended by a whole-time dentist.

(e) **Tuberculosis Dispensary** :

35, Grange Road West. Open daily from 9 a.m. to 5 p.m. and attended by the Tuberculosis Medical Officer, who has a staff of three nurses and two clerks.

(See Tuberculosis Medical Officer's Report).

(f) **Venereal Diseases Clinic** :

7, Grange Road West. Open on Mondays and Fridays at 8-30 a.m. and 5-30 p.m. for Males, and on Wednesdays at 5-30 p.m. for Females ; also every week-day morning

and every week-day night (except Wednesdays and Saturdays) at 8-30 and 5-30 for irrigation of Males. Treatment is carried out by a part-time medical officer, one male and one female attendant and two clerks.

(See the *Venereal Diseases Officer's Report*.)

PROFESSIONAL NURSING IN THE HOME.

(a) General :

This is provided by the Middlesbrough and District Nursing Association. The Association is supported by voluntary contributions, but receives grants from the Local Authority for various services, *e.g.*, home nursing of Tuberculosis, Puerperal Fever, Pneumonia, Ophthalmia Neonatorum, Expectant and Nursing Mothers, and Infants under 5 years of age, if required. These cases are referred to the Association by the Departmental Medical Officers of the Local Authority.

(b) Infectious Diseases :

One whole-time Nurse is employed by the Local Authority to visit and, when necessary, nurse cases of Measles. Temporary Nurses are engaged as required.

(c) Midwives :

There are 40 Midwives practising in the Borough, 36 of whom are trained and 4 untrained.

LABORATORY WORK.

The Bacteriological and Pathological work is sent to the Clinical Research Association.

The Chemical Analysis is done by Messrs. Scholes and Jackson, of Middlesbrough.

Bacteriological Examinations—1927.

Specimen.	Positive.	Negative.	Total.
Diphtheria	36	120	156
Cerebrospinal Fever .. .. .	..	3	3
Enteric Fever	3	7	10
Encephalitis Lethargica .. .. .	..	1	1
Lead Poisoning .. .. .	..	1	1
Water .. .. .	..	1	1
Rats (for B. Pestis.) .. .. .	..	6	6
Milk (for B. Coli)	52	77	129
Milk (for T.B.) .. .. .	..	65	65

Serums, Vaccines, etc., Issued.

Salvarsan Substitutes issued to General Practitioners, etc.	..	294 tubes.
	2,000 units	71 „
Anti-Diphtheritic Serum	.. .. 4,000 units	4 „
	8,000 units	1 „

Outfits Supplied for diagnosis :—

Diphtheria	.. ..	137
Widal	.. ..	3
Wassermann	.. ..	135
Slides (for Gon.)	.. ..	6

Adoptive and Local Acts and Bye-laws.

There have been no additions or alterations during the past year.

SANITARY CIRCUMSTANCES OF THE AREA.

Water:

The supply is that of the Tees Valley Water Board. During the past year samples of the domestic water supply have been submitted to analysis and the reports have been satisfactory.

Sewers and Drainage:

During the year 1927 there were 1,030 yards of new Sewers of varying diameters from six inches to eighteen inches laid within the Borough.

Closet Accommodation, Scavenging, Removal of House Refuse, etc.:

No alterations have been made during the year in respect to any of the above.

Report of the Chief Sanitary Inspector for the Year 1927.

SANITARY INSPECTION OF THE AREA.

DESCRIPTION OF WORK CARRIED OUT.

Number of Inspections made	..	..	..	..	..	..	9,671
Number of re-inspections made	..	..	..	..	..	..	19,122
Number of Food inspections	..	..	..	..	..	..	9,767
Number of Notices and Letters served	..	..	..	..	..	..	8,912

Drainage :

Tests applied to new Drains	..	..	..	..	..	501
Drains Re-constructed	..	..	..	..	..	189
Cleansed and Repaired	..	..	..	..	..	492
Sink Waste Pipes Trapped or Renewed	..	..	..	..	..	93
Defective Yard Gullies	..	..	..	..	..	18
Grates provided for Gulley Traps	..	..	..	..	..	43
Drains Cleared with Cooper's Vacuum Pump (free of cost to Owners)	..	..	..	..	..	2,870
Defective Gulley Covers	..	..	..	..	..	30

Water Closets :

Provided with a sufficient Water Supply	..	..	..	..	..	69
Basins Renewed	..	..	..	..	..	11
Cisterns Repaired or Renewed	..	..	..	..	..	281
Foul Water Closet Drains	..	..	..	..	..	205
Defective Closet Doors	..	..	..	..	..	206
Dilapidated Closet Seats	..	..	..	..	..	22
Defective Closet Roofs	..	..	..	..	..	258
Defective Joint between Flushpipe and Water Closet Basin	..	..	..	..	..	10

Houses :

Cleansed or Limewashed	..	..	..	..	..	241
Roofs, &c. repaired	..	..	..	..	..	409
Water Spouts Fixed or Repaired	..	..	..	..	..	1,385
New Sinks Fixed	..	..	..	..	..	88
Accumulations of Refuse or Manure removed	..	..	..	..	..	8
Nuisances arising from the keeping of Animals, Poultry, etc.	..	..	..	..	..	9
Pavement of Yards Repaired	..	..	..	..	..	266
New Floors Laid or Repaired	..	..	..	..	..	216
Provided with a sufficient Supply of Water	..	..	..	..	..	22
Dilapidated Ashpans	..	..	..	..	..	33
Dilapidated Dustbins	..	..	..	..	..	2,545
Defective Ceilings	..	..	..	..	..	126
Defective Chimneys	..	..	..	..	..	66
Defective Sashcords and Windows	..	..	..	..	..	278
Defective Fireplaces	..	..	..	..	..	44
Defective Fireranges	..	..	..	..	..	112
Defective Walls	..	..	..	..	..	398
Defective Ovens	..	..	..	..	..	32
Dilapidated Set-Pots	..	..	..	..	..	115
Dilapidated Set-Pot Firebars	..	..	..	..	..	31
Defective Handrails	..	..	..	..	..	28
Dirty Premises	..	..	..	..	..	20
Defective Flues	..	..	..	..	..	53
Defective Yard Doors	..	..	..	..	..	147
Dilapidated Back Passage Surfaces	..	..	..	..	..	88
Miscellaneous Works not Classified	..	..	..	..	..	707
Number of Housing Cards compiled since January, 1927	..	..	..	..	..	198

The above Sanitary defects were satisfactorily remedied during the year.

The attention of the Borough Engineer has been called to the following defects :

Apparently dangerous structures	..	..	..	..	119
Miscellaneous	..	..	..	..	19

SANITARY CONVENIENCES.

With the exception of 89 Privy Pan Closets that exist in the Nile Street area, the town can be called wholly Water Carriage.

During the year 34 Pan Closets have been abolished with the demolition of the Dacre Street area.

INFECTIOUS DISEASES.

During the year 1,113 houses have been inspected, incurring 2,709 re-inspections, owing to cases of Infectious Disease (including Tuberculosis), and reports made to the Medical Officer of Health.

The number of dwelling houses disinfected owing to cases of infectious disease occurring was 1,726.

REFUSE COLLECTION AND DISPOSAL.

A regular weekly collection is made from the 28,880 houses and shops within the Borough. The collection is made by 14 horse-drawn vehicles and 9 motor vehicles (consisting of 6 Ford Tonners and 3 S.D. Freighters).

During the year 26,816 loads of refuse were collected ; 14,139 loads representing 16,967 tons by horse-drawn vehicles ; and 12,677 loads representing 17,952 tons by motor vehicles. The motors are worked in those outlying districts where the time taken in disposing of the load is greater than the time taken by the loaders in loading the vehicle following up.

34,919 tons represent 262.55 tons per 1,000 population per annum. This figure is 17.17 tons per 1,000 population per annum less than last year, and cannot be considered high ; it is considerably below the average, particularly for the North-East, and even so, too much valuable cinder is wasted by the housewife which means an added cost of 35% to 40% in the household coal account.

70,725 bags of Waste Paper and Light Refuse matter were collected free of charge from the shops within the Borough. This is disposed of chiefly at the Swimming Baths and undoubtedly is a cheap fuel whereby the whole of the steam raising plant is fed.

Household Refuse was disposed of by barging to sea and tips. Two hoppers were employed for the disposal of refuse at sea, and 65 trips were made, 17,399 tons of refuse being disposed of. 16,463 tons of refuse were disposed of at the Tips, and 1,057 tons were sold to Farmers as Manure.

Barging to sea is an excellent method of disposal, but without wishing to qualify as a prophet, I do think that in the immediate future our methods will be considered wasteful, as other means more profitable to the Ratepayer will be evolved.

The cost of collection and disposal from the figures in the Estimates supplied by the Borough Accountant are as follows :—

Cost of Collection ..	£14,993 per annum.
Cost of Disposal ..	£4,896 per annum.

This shews a slight increase over last year of £207, but this increase is due to land that has been purchased on the Winneybanks Estate for use as a Tip, and cost £260. With this amount deducted, there is a slightly less cost on the year's working.

From the Report issued by the Ministry of Health on the cost of Refuse Collection and Disposal, Middlesbrough ranks low in the cost per 1,000 houses, viz., £679. The reason that I have given the figure for 1,000 houses is on account of some towns not having their refuse weighed ; and it is invariably the case that when refuse is estimated, it is much higher than if it had been weighed. It is therefore more reliable to give a comparative on the number of houses.

Snow interfered with the work of Collection before the Xmas Season, lasting for 2 weeks. Considerable extra work is involved in consequence, but to add to our troubles, the general principle of the householder to rid his yard of the snow is by depositing it in the back street. You can realise what this means ; extra men had to be employed to clear a road through the snow before horse and motor vans could negotiate the back streets. The B.B.C. at Newcastle, were asked to broadcast an appeal to householders, which they readily did ; and I trust that it will bear fruit on future occasions.

COLLECTION AND DISPOSAL OF ORGANIC REFUSE.

The Organic Plant has been in full work during the year, and I am pleased to report that the Plant has been successful and a profit of approximately £400 was realised on the year's working.

The undermentioned organic waste, &c., were dealt with :—

Diseased Meat	4,664 stones.
Organic Waste from Slaughterhouses ..	15,864 stones.
Fish Offal	31,680 stones.
Dead dogs and cats	1,240 stones
Fish Scrappings	113 stones.

The following manufactured products were sold :—

					£	s.	d.
Fish Meal	..	..	46 tons	..	..	725	12 0
Blood Meal	..	..	6 „	..	..	72	7 0
Meat Meal	..	..	9½ „	..	..	128	2 6
Fertiliser	..	..	26 „	..	..	196	12 6
Tallow—White	..	..	8½ „	..	..	258	8 10
Green	..	..	6 „	..	..	129	9 6
Total Income					..	£1,510	12 4

RATS AND MICE (DESTRUCTION) ACT, 1919.

During the year 28 complaints have been received of Rats infesting houses, shops or warehouses within the Borough. All complaints were promptly attended to, and where possible, the rats were traced to their sources and destroyed. Every assistance and advice has been given to householders and others to clear their premises of the pest.

During the year 2 of our Official Rat Clubs have disbanded, but the remaining 3 Clubs have continued their operations against these pests; 266 places have been visited and 2,869 rats have been killed. I consider that this weekly destruction of Rats is more efficacious than holding up your efforts until the recognised Rat Week, as during the year large numbers of Rats are bred which would not have been in existence at the Rat Week if the methods employed in Middlesbrough were general throughout the Country.

SANITARY CONDITIONS OF THEATRES AND MUSIC HALLS.

In accordance with the requirements of the Ministry of Health (Circular No. 120), an inspection of the sanitary conditions of the Theatres, Music Halls, and other places of public entertainment has been made, and all were found to be satisfactory.

SHOPS ACTS.

During the year the shops within the Borough have been kept under close observation. A large number of evening inspections have been made, and whilst the larger shops are always punctual in closing at the recognised hours, the greatest difficulty is experienced with the smaller shops off the main roads where a mixed business is carried on. Sweets and other confectionery are only sold for the purpose of keeping open, and advantages are taken of selling other commodities from the shop when it should be really closed.

Numerous letters of warning have been sent out for contravening the Act, and two prosecutions with penalties inflicted have been taken.

HOUSES LET IN LODGINGS.

Number of Houses	..	..	..	..	..	99
Number of Inspections	..	..	..	..	..	336
Number of applications to Register	..	..	..	..	..	14
Number of Notices and Letters re Cleanliness, Repairs, &c.	..	..	..	..	..	178

COMMON LODGING HOUSES.

Number of Houses	..	..	..	..	..	13
Number of Keepers	..	..	..	..	..	11
Number of Inspections	..	..	..	..	..	254
Number of Lodgers accommodated Nightly	..	..	..	..	..	689
Number Closed or Discontinued	..	..	..	..	..	Nil
Number of Notices and Letters re Repairs, Cleanliness &c.	..	..	..	..	..	49

SLAUGHTERHOUSES.

December, 1920.		January, 1927.		December, 1927.	
Registered.	Licensed.	Registered.	Licensed.	Registered.	Licensed.
39	3	37	2	34	2
Number of Inspections		..	..	..	.. 6,590
Number of Notices to Limewash		..	..	..	.. 45
Number of Notices to provide Refuse Receptacles		..	..	..	.. 3
Number of Notifications of Change of Occupier		..	..	..	.. Nil
Letters re Cleanliness, Repairs, etc.		..	..	..	.. 9
Public Slaughterhouse		..	..	..	.. 1

OFFENSIVE TRADES.

Number on Register	..	..	..	..	..	153
Fried Fish Shops	..	..	..	..	..	130
Tripe Boilers	..	..	..	..	..	10
Tallow Melters	..	..	..	..	..	2
Tallow Chandlers	..	..	..	..	..	1
Gut Scrapers	..	..	..	..	..	3
Fat Renderers	..	..	..	..	..	2
Bone Steamers	..	..	..	..	..	1
Glue Makers	..	..	..	..	..	1
Fellmongers	..	..	..	..	..	1
Lubricant Makers	..	..	..	..	..	2

Number of Inspections	..	..	..	..	251
Number of Notices to Limewash	..	..	..	..	49
Number Fried Fish Shops Closed	..	..	..	..	1
Number Fried Fish Shops opened	..	..	..	..	1
Number Changes of Occupier—Gut Scraper	..	..	..	..	1
Letters of warning for minor contraventions of Bye-laws	..	..	..	..	39

FRIED FISH SHOPS.

These businesses came within the provisions of Section 112 of the Public Health Act, 1875, as amended by Section 51 of the Amendment Act, of 1907, as an Offensive Trade, in July, 1922. The whole of the Fried Fish Shops within the Borough have now been brought up to a good standard; new ranges have been provided which are more satisfactory from an effluvia nuisance standpoint, and the whole generally are carried on in a most satisfactory manner.

ICE CREAM DEALERS.

The Middlesbrough Corporation Act of 1910, Sections 38 and 39, give the Corporation power to govern the manufacture of Ice Cream.

During the year all premises where Ice Cream is manufactured or stored have been visited regularly, all being found satisfactory.

Number manufacturing Ice Cream	..	..	..	71
Number Selling Ice Cream	..	..	..	111
Number Discontinued during year	..	..	..	23
Number Registered during year	..	..	..	76
Number of Inspections made	..	..	..	158
Number of letters sent re minor contraventions, alterations to premises, etc.	..	..	..	13

Under the Food and Drugs Act there is no standard laid down for this confection, and as it is made wholly from Milk, Corn Flour, Flavouring Essences, some manufacturers are honest in their endeavours to give the public something with a food value; whilst others, from samples I have had analysed, have reduced the Milk Fat Content to as low as 1.3%. This is indicative that at least 50% Water has been added. In consequence of these poor results, I got in touch with several of the Vendors, and laid down a standard of 2.5% Butter Fats; and I am pleased to say that this standard was soon attained generally.

I am of the opinion that Legislation should fix a minimum standard for this commodity.

COW SHEDS.

Number of Cowsheds	..	..	..	..	4
Number of Registered Cowkeepers	..	..	..	..	4
Number of Cows kept	..	..	..	..	24
Number of Inspections made	..	..	..	..	7
Number of Notices to Limewash	..	..	..	..	2
Number Discontinued during year	..	..	..	..	Nil

DAIRIES AND MILKSHOPS.

Number on Register	..	..	..	..	..	135
Number Discontinued since January, 1927	..	..	..	..	..	29
Number Registered since January, 1927	..	..	..	..	..	18
Number of Inspections	..	..	..	..	..	372
Number of Notices requesting Purveyors to Register	..	..	..	..	..	7

Letters of warning for minor contraventions of the Bye-laws were sent to several Milk Purveyors, but the conduct of the whole was generally satisfactory, and the multifarious Orders have been carried out.

ADMINISTRATION OF THE FACTORY AND WORKSHOPS ACT, 1901.

There are 420 Workshops on the Register, including :—

Workshop Bakehouses	..	..	50	Tinsmiths	..	..	..	6
Factory Bakehouses	..	..	25	Watch Repairing	..	..	..	9
Boot and Shoe Repairing	..	..	59	Cabinet Making	..	..	..	12
Dressmaking	..	..	29	Laundries	..	..	..	9
Millinery	..	..	12	Cycle Making and Repairing	..	..	..	23
Tailoring	..	..	41	Workplaces	..	..	..	20
Joinery	..	..	46	Blacksmiths	..	..	..	11
Plumbing	..	..	11	Miscellaneous	..	..	..	54
Saddlery	..	..	3					

On the whole, the Workshops, Retail Bakehouses, etc., were found to be in a satisfactory condition, and no Legal Proceedings were instituted.

Full details of the Workshops and Inspections have been placed on record in accordance with the Act.

The following is the summary of the work carried out during the year :—

Notices received from His Majesty's Inspector of Factories :

Re-occupation of Workshops	..	..	..	..	18
Unsuitable Sanitary Accommodation	..	..	..	..	6
Dirty Workshops	..	..	..	..	6

Factories :

Number Inspected	..	..	..	..	143
Number of Inspections	..	..	..	..	421

Workshops and Domestic Workshops :

Number Inspected	..	..	..	..	420
Number of Inspections	..	..	..	..	2,375

Notices Served under the Public Health Acts :

To Cleanse and Limewash	..	..	..	..	33
To provide means of Ventilation, (Sec. VII.)	..	..	..	..	9
Re Wet Floors, (Sec. VIII.)	..	..	..	..	Nil
Sanitary Defects	..	..	..	..	35
To provide Refuse Receptacle	..	..	..	..	15
Overcrowding	..	..	..	..	Nil

Bakehouses, 75 in number, including 25 Factory Bakehouses :

Number Inspected	..	..	..	..	75
Number of Inspections	..	..	..	..	375
Notices served to Limewash	..	..	..	..	Nil

Factory Bakehouses :

Number of Inspections	..	..	..	..	125
Unsuitable Premises	..	..	..	..	Nil

Sanitary Conveniences in Workshops :

Closets, Insufficient, Unsuitable or Defective	23
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Home Work (Section 107 to 115) :

33 Lists of Out-Workers (or Home Workers) were received in the first half of the half of the year, and 35 for the second half.

Number of Lists of Outworkers received	..	..	..	68
Number of Employers	..	..	..	36
Number of Outworkers Premises Inspected	..	..	..	112

Workplaces (Restaurant Kitchen, etc.) :

Number on Register	..	..	..	..	..	42
Number Inspected	..	..	..	..	..	42
Number of Inspections	..	..	..	..	..	115

HOUSING.**Number of New Houses Erected during the year, 1927 :**

a. Total (including numbers given separately under b)	..	..	303
b. With State Assistance under the Housing Acts	..	..	257
1. By the Local Authority	..	..	100
2. By other Bodies or Persons	..	..	157

1. Unfit Dwelling Houses :**Inspection :**

(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts)	9,671
(2) Number of dwelling houses which were inspected and recorded under the Housing (Inspection of District) Regulations, 1910, or Housing Consolidated Regulations, 1925	..	..	..	..	651
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation (Scheduled Areas)	..	..	..	..	294
(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	..	..	..	..	8,595

2. Remedy of Defects without service of formal Notices :

Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their Officers	..	8,595
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3. Action Under Statutory Powers :**A.—Proceedings under Section 3 of the Housing Act, 1925 :**

(1) Number of dwelling houses in respect to which Notices were served requiring repairs	..	..	..	..	..	Nil
(2) Number of dwelling houses which were rendered fit after service of Formal Notices	..	..	..	..	..	Nil
(a) By Owners	..	..	..	..	..	Nil
(b) By Local Authority in default of Owners	..	..	..	..	..	Nil

- | | |
|--|-----|
| (3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of intention to close | Nil |
|--|-----|

B.—Proceedings Under Public Health Acts :

- | | |
|--|-------|
| (1) Number of dwelling houses in respect of which Notices were served requiring defects to be remedied | 1,706 |
| (2) Number of dwelling houses in which defects were remedied after service of Formal Notices : | |
| (a) By Owners | 1,705 |
| (b) By Local Authority in default of Owners | 1 |

C.—Proceedings Under Sections 11, 14, and 15 of the Housing Act, 1925 :

- | | |
|---|-----|
| (1) Number of representations made with a view to the making of Closing Orders | Nil |
| (2) Number of dwelling houses in respect of which Closing Orders were made | Nil |
| (3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit .. | Nil |
| (4) Number of dwelling houses demolished in pursuance of Demolition Orders | 63 |

INSPECTION AND SUPERVISION OF FOOD.

MILK SUPPLY.

During the year, 129 samples of Milk were procured and submitted for Bacteriological Examination, and a high standard of cleanliness was maintained. 23 or 17.7% were found to contain Coliform Bacilli upon first test; and 29 or 22.5% were found to contain Coliform Bacilli upon second or subsequent tests.

65 samples were examined for Tubercle Bacilli, 19 by Inoculation Test and 46 by Microscopical Test, and all were returned "Negative."

Letters of warning, together with suggestions on "How to Produce Clean Milk" are sent to all Farmers whose Milk is dirty. Letters notifying Farmers who are producing Clean Milk are also sent.

Of the 23 samples that contained Coliform Bacilli on first examination, 11 contained Coliform Bacilli in only 1/100th of a c.c., 6 in 1/1000th of a c.c., and 6 in 1/10000th of a c.c.

It is a rather a singular fact that the majority of dirty samples are obtained during the harvest months of the year. This I attribute to the absence of the responsible person, and the milking is usually left for anybody to perform—usually the young boys on the farm.

Only one sample could be called really dirty Milk, as in most cases the total Bacteria Count did not exceed the 200,000 Bacteria allowance.

It is an added pleasure to find the hearty co-operation that is shewn by all Farmers to produce a Clean Milk, and I feel that no good purpose would be gained by taking Proceedings when such heartfelt co-operation is given by those responsible.

Year	Number of samples taken	Number of samples containing Tubercular or Coliform Bacilli			Number of cases reported to Medical Officer of Health of District	Number of supplies withdrawn	Outstanding
		First Test	Second Test	Third & subsequent Tests			
1927	129	23	21	8	12	Nil	7

A sample of dirty water from a churn that was supposed to have been effectively cleansed by the Dairyman before returning to the Farmer was also submitted for examination, and it was found to have a very high Bacteria Count, Coliform Bacilli being present in 1.1000th of a c.c. Legal Proceedings were taken under the Milk and Dairies Order against the Dairyman, the case being dismissed upon payment of costs.

A piece of linen was also submitted for examination. This linen had been placed by a Farmer over the mouth of one of his churns, underneath the lid, to prevent spilling in transit. The Bacteria Count was 10 millions per square inch, equal to 20,000 B. Coli per 1 c.c. The Farmer in question was warned to discontinue the practice.

**REPORT OF ADMINISTRATION IN CONNECTION WITH THE PUBLIC HEALTH
(MILK AND CREAM) REGULATIONS OF 1912, DURING THE YEAR ENDED,
DECEMBER 31st, 1927.**

1. Milk and Cream not Sold as Preserved Cream :

	Number of Samples examined for the presence of Preservatives.			Number in which Preservative was reported to be present and percentage of preservative found in each Sample.
Milk	155	Nil
Cream	9	Nil

2. Cream Sold as Preserved Cream :

(a) Instances in which samples have been submitted for analysis to ascertain if the statement on the label as to Preservative was correct :—

(1) Correct statements made	5
(2) Incorrect statements made	Nil

(b) Determinations made of Milk Fat in Cream sold as Preserved Cream :

(1) Above 35%	..	..	..	..	..	5
(2) Below 35%	..	..	..	..	..	Nil
						5

Preservatives :

The Public Health (Preservatives, &c. in Food) Regulations, 1926, comes into operation in four parts. Two parts, those relating to bacon, ham, egg yolk, &c., and all other foods with the exception of Butter, Cream, Preserved Bacon, &c. on the 1st January, 1928. The whole of the Regulations are in final operation from 1st July, 1928.

Sulphur Dioxide and Benzoic Acid will then be only allowed to be used as Preservatives, and then only in such quantities as laid down by the Regulations.

The Milk and Dairies Order will finally come into operation on the 1st October, 1928. This Order was made under the Milk and Dairies (Consolidation) Act of 1915, and relates to the conditions in respect to cleanliness of Dairies, temperature of Milk, conveyance and distribution of Milk, and explains more fully what is required in the production, distribution and storage of Milk generally.

Food and Drugs Act.—Samples taken for Analysis.

Description of of Sample	Number taken	Number Genuine	Not Genuine	Number of Official Samples	Number of Unofficial Samples	Remarks
New Milk ..	153	133	20	68	85	....
Certified Milk ..	2	2	..	..	2	....
Fresh Cream ..	9	9	..	..	9	....
Preserved Cream ..	5	5	..	..	5	....
Ice Cream ..	18	18	..	..	18	Although there is no fixed standard by Law as to what Ice Cream shall consist of in respect to food value, I consider that as the chief component is milk with a fixed fatty content of 3%, it is reasonable to allow a minimum of 16% loss of fatty content in manufacture, making the milk fat standard 2.5%. This is the standard I have fixed and which I consider is reasonably consistent with its food value.
Butter ..	5	4	1*	4	1	*Contained 17.56% water, being 1.56% in excess of the legal limit of 16% water. Vendor cautioned.

Description of Sample	Number taken	Number Genuine	Number of			Remarks
			Not Genuine	Official Samples	Unofficial Samples	
Margarine blended with Butter ..	1	1	..	..	1	....
Margarine ..	3	3	..	..	3	....
Milk Powder ..	3	3	..	..	3	....
Clansing Powder	1	1	..	..	1	....
Jam ..	7	7	..	..	7	....
Marmalade ..	2	2	..	..	2	....
Eggs—chocolated	4	3	1*	..	4	*Contained 1/50th of a grain of Arsenic, calculated as Arseneous Oxide, per pound. The Arsenic is probably associated with Oxide of Iron in the Mineral matter. These Eggs are coloured brown. The whole of the stocks from the shopkeeper concerned were withdrawn from sale.
Eggs—Sugared ..	5	5	..	..	5	....
Butter Pats (Confectionery)	1	1	..	..	1	....
Sausage ..	12	11	1*	..	12	*Contained 2.24 grains Boric Acid per pound.
Brawn ..	2	2	..	..	2	....
Sausage Seasoning	1	1	..	..	1	....
Potted Meat ..	1	1	..	..	1	....
Malt Vinegar ..	2	1	1*	..	2	*This sample was found upon analysis to be incorrectly described as "Malt Vinegar." Vendor cautioned.
Blaud Pills ..	6	2	4*	..	6	*Two of the four samples found not genuine were owing to their not containing a minimum of 20% Carbonate of Iron and Sodium Oxide (equal to 21.60% Sodium Carbonate) as required by the standard laid down by the British Pharmacopoeia. The Chemists in question stated that the reason these Pills were not up to standard was owing to their deliquescent character. In consequence I kept the remains of the samples for 7 months, and again had them analysed. The result was that the loss in the carbonate of iron during the period retained was only equal to 0.06%, which shews emphatically that iron pills are not of such a deliquescent character as stated. The Chemists in question were warned as to further contraventions of the standard as laid down by the British Pharmacopoeia.

Description of of Sample	Number taken	Number Genuine	Number of			Remarks
			Not Genuine	Official Samples	Unofficial Samples	
Cheese	4	4	..	..	4	....
Whisky	7	6	1*	7	..	*Contained 96.66% Whisky 35 degrees Under Proof, and added water 3.34%. Vendor cautioned.
Mincedmeat ..	7	7	..	..	7	....
Cocoa (Loose) Pure	2	..	2*	1	1	*This sample contained Added Starch and Sugar, which Pure Cocoa should not. Vendor prosecuted.
Disinfectant ..	2	2	..	..	2	....
Sauce	2	2	..	..	2	....
Ground Ginger ..	1	1	..	..	1	....
Gregory Powder ..	1	1	..	..	1	....
White Pepper ..	1	1	..	..	1	....
Dripping	1	1	..	..	1	....
Tea	1	1	..	..	1	....
Baking Powder ..	1	1	..	..	1	....
Lard	1	1	..	..	1	....
Rice	1	1	..	..	1	....
Ground Rice ..	1	1	..	..	1	....
Coffee	1	1	..	..	1	....
Rum and Coffee ..	1	..	1*	..	1	*This sample contained 0.53% of Absolute Alcohol by weight. This percentage of Alcohol is equal to 1.16% of Proof Spirit or 1.86% of Rum of a strength of 35 degrees Under Proof, and the quantity of Rum in the sample is not sufficient to justify the description of the article as "Rum and Coffee."
Raisins	1	1	..	..	1	....
Sultanas	1	1	..	..	1	....
Dried Apricots ..	1	1	..	..	1	....
Sugar	2	2	..	..	2	....
Lemon Peel ..	1	1	..	..	1	....
Dried Pears ..	1	1	..	..	1	....
Gelatine	1	1	..	..	1	....
Fruit Wines ..	5	4	1*	..	5	*This sample contained 85 parts of Salicylic Acid per million and 27 parts of Sulphur Dioxide per million. Under the Preservatives Order, 1925, Salicylic Acid is not allowed. Vendor cautioned, and stocks withdrawn from sale.
TOTALS ..	291	258	33	80	211	

Administrative Action regarding Samples of Milk reported "Not Genuine."

No. of Sample	Official or Unofficial	Result of Analysis.	Action Taken.
6	Unofficial	26.6% deficient in fats	Official Sample (No. 7) procured and declared by analyst upon analysis to be genuine.
8	Official	11.6% deficient in fats	Vendor Prosecuted.
12	Official	8.3% deficient in fats	Vendor Prosecuted.
30	Unofficial	9.3% deficient in fats	Official Sample (No. 32) procured and declared by analyst upon analysis to be genuine. Farmer cautioned.
107	Official	16.6% deficient in fats	Vendor Prosecuted.
109	Unofficial	12.3% deficient in fats	This Sample was procured as received from the farmer. In consequence I visited the farm and found only four cows were kept. Samples were procured from each cow, and one shewed only 0.08% fats. I advised the farmer to only include the night's milk from this when sending to the Dairy for sale; as the fatty content of that milk was 5%, as against the morning's 0.08% as stated. This, as you will see, is a very extraordinary variation and the cow did not improve during the four weeks the Farmer had it.
111	Official	6.6% deficient in fats	Farmer cautioned. Further Samples procured and on analysis were declared "Genuine."
162	Unofficial	6.6% deficient in fats	Official Sample (No. 169) procured and declared by analyst to be 'Genuine.' Farmer cautioned.
171	Unofficial	19% deficient in fats	In consequence of the first Sample being deficient, I visited the Farm and procured further samples. The Farm was only very small, and during this period the weather was exceedingly wet and the pastures were flooded. Advised the Farmer to give the cows more food with a high fatty value. This was done, and after 2 weeks the Milk was brought up to the required standard.
186	Official	23.3% deficient in fats	
189	Unofficial	13.3% deficient in fats	

No. of Sample	Official or Unofficial	Result of Analysis	Action taken
175	Unofficial	31.6% deficient in fats	In consequence of Samples 175 and 187 being deficient in fats, I visited the Farm. The weather at this time was very wet and the ground full of moisture. Advised farmer to give cows more concentrates. This was done and further samples were procured, and in due course the milk was brought up to the desired standard.
187	Official	26.6% deficient in fats	
188	Unofficial	26.6% deficient in fats	
196	Unofficial	20.0% deficient in fats	
213	Unofficial	20.0% deficient in fat	
216	Unofficial	28.3% deficient in fats	
195	Unofficial	11.6% deficient in fats	This Sample was obtained from a barrow in the street. Further samples of this milk were obtained from churns at the Railway Station in course of delivery to the vendor and upon analysis were declared "Genuine." Vendor cautioned.
177	Unofficial	14.3% deficient in fats	Official Sample (No. 185) procured in course of delivery and declared by analyst upon analysis to be "Genuine." Farmer cautioned.
176	Unofficial	14.3% deficient in fats	Official Sample (No. 184) procured in course of delivery and declared by analyst upon analysis to be 'Genuine.' Farmer cautioned.

As will be noted from the above table, 20 samples of Milk did not comply with the standard as laid down by the Sale of Milk Regulations, 1901, that the Fat Content shall be 3%, and the Non-Fatty Content 8.5%. This large number (20), representing 12.9%, is due to the manner in which I procure the Samples, *i.e.*, direct from the Farmers' churns before they reach the Dairies; as when they arrive at the Dairies they are usually mixed and seldom fall below the required standard. The average Fatty Content of the 153 samples procured for analysis proved to be 3.399%.

No good purpose is served by procuring samples of Milk from known good supplies, and I concentrate on the supplies before they reach the Dairies, following up by "Appeal to Cow" samples as necessary. Often when Farmers have withdrawn 1 or 2 pints of the first drawn Milk, the required standard is attained.

Informal or Test Samples :

It will be seen from the Tabulated Statement that 80 Informal and 211 Formal Samples were taken during the year, all of which were submitted to the Public Analysts for analysis.

Informal Samples are in all cases purchased by an Agent, and if they are found to be adulterated, Formal samples are obtained with a view to Summary Proceedings being taken. It has been found that the obtaining of Informal samples is, on the whole, a very convenient method of estimating whether vendors are supplying genuine articles and causes no inconvenience to shopkeepers, as when the samples are obtained formally, the latter involves explanation as to why the sample has been purchased, the subsequent division of the sample into three parts and the sealing up of the same, which all take up a considerable time.

PUBLIC HEALTH (MEAT) REGULATIONS, 1924.

The above Regulations lay down that 3 hours Notice of intended slaughter must be given. By this means, every animal slaughtered within the Borough is inspected as to its condition before it is removed from the slaughterhouse. During the year 2,686 such notifications were received in addition to 16 regular slaughterings, where operations are carried on daily.

The following have been slaughtered and inspected before removal to the shops :

Species.	Public Abattoir.	Private Slaughterhouses.
Bulls	12	232
Bullocks	455	1,594
Cows	410	447
Heifers	780	1,499
Calves	446	459
Sheep	4,641	12,209
Pigs	1,589	8,725
Totals ..	8,333	25,165

Of the 33,498 animals slaughtered, 32,987 or 98.47% were found to be sound and unaffected by disease of any nature ; 358 or 1.07% were found to be affected with Tuberculosis, and 153 or 0.46% were found to be affected with other diseases or conditions. (*see Table.*)

In addition, a large number of carcasses that have been slaughtered outside the Borough are received in the various wholesale warehouses, and a regular inspection is made. These warehouses are often a source where diseased meat finds its way to the consumer, as the inspection of carcasses in rural areas is not carried out the same as in larger towns.

PARTICULARS OF SURRENDERS AND SEIZURES OF UNSOUND ANIMALS AND MEAT.

Number of voluntary surrenders of diseased carcasses, or part carcasses or internal organs by butchers to Chief Inspector.			Number of seizures (with subsequent destruction) of diseased carcasses or part carcasses or internal organs by Chief Inspector.		
Year	Tuberculosis	Other Conditions	Tuberculosis	Other Conditions	Total
1926	151	103	2	1	257
1927	358	153	..	..	511

A notable feature is the increase in the number of animals affected, but this is chiefly due to the great increase in organs only affected, viz. :—

	Whole carcasses affected	Part carcasses affected	Organs only affected
1926	108	66	83
1927	112	112	287

Number and Class of Animals affected by

	Whole Carcases affected and Condemned							Total	Percentage
	Bulls	Bullocks	Cows	Heifers	Calves	Pigs	Sheep		
Tuberculosis	1	9	35	13	1	25	..	84	0.251
Peritonitis	8	..	8	0.024
Dropsy	2	1	..	..	..	2	5	0.015
Fatty Infiltration
Inflammation
Pneumonia
Moribund	1	1	..	2	0.006
Jaundice	1	..	1	0.003
Suffocation	5	1	6	0.018
Cirrhosis
Fibro Plastic Nephritis
Abscesses
Johnes Disease
Melanosis
Flukes
Capillary Angioria
Cysts
Septicæmia	2	..	..	..	..	2	0.006
Fevered	1	..	..	..	..	1	0.003
Immature	1	..	..	1	0.003
Accident	1	1	0.003
Decomposed	1	..	..	1	0.003
Bruised
	1	11	39	13	4	40	4	112	0.335

various Diseases or Conditions during Year 1927.

Part Carcases affected and Condemned									Organs only affected and Condemned									Total	Percentage
Bulls	Bullocks	Cows	Heifers	Calves	Pigs	Sheep	Total	Percentage	Bulls	Bullocks	Cows	Heifers	Calves	Pigs	Sheep	Total	Percentage		
2	10	31	6	..	58	..	107	0.319	5	25	87	24	..	26	..	167	0.498	358	1.068
..	1	..	1	..	2	0.006	10	0.03
..	5	0.015
..	1	..	..	..	..	1	0.003	1	0.003
..	1	..	2	..	3	0.009	3	0.009
..	4	..	4	0.012	4	0.012
..	2	0.006
..	1	0.003
..	6	0.018
..	1	1	12	..	14	0.042	14	0.042
..	2	..	..	2	0.006	2	0.006
..	1	..	..	..	..	..	1	0.003	1	3	2	7	..	..	..	13	0.039	14	0.042
..	1	..	..	..	..	1	0.003	1	0.003
..	1	..	1	..	..	..	2	0.006	2	0.006
..	1	27	11	7	..	..	..	46	0.138	47	0.138
..	1	..	..	..	..	1	0.003	1	0.003
..	2	..	..	..	29	..	31	0.092	31	0.092
..	2	0.006
..	1	0.003
..	1	0.003
..	1	0.003
..	1	0.003
..	..	2	..	..	..	2	4	0.012	..	..	..	..	..	..	..	..	..	4	0.012
2	11	33	6	..	58	2	112	0.334	7	58	103	42	3	74	..	287	0.857	511	1.526

Below is a list of Foodstuffs that were found to be unsound and unfit for human consumption. All were surrendered and destroyed.

	Number	Weight
Beasts	64	2,425 stones
Sheep	4	17 "
Sheep (Frozen)	20	60 "
Calves	4	6 "
Pigs	40	303 "
Beef .. .. .	....	413 "
Mutton .. .. .	....	13 "
Pork .. .. .	....	77 "
Beef (Frozen) .. .. .	....	270 "
Offal .. .. .	....	317 "
Fish .. .. .	....	49 "
Tongue	8 tins	3 "
Bacon .. .. .	....	16 "
*Rabbits	283	50 "
Chickens	12	3 "
Turkeys	8	6 "
Eggs	622	....
†Milk .. .. .	....	8 gallons
Potatoes .. .. .	....	104 stones
Pears .. .. .	....	40 "
Kidney Beans .. .. .	....	4½ "
Corned Beef .. .. .	....	7 pounds
Chestnut .. .. .	....	20 stones
Total weight		4,197 stones.

*One Rabbit was seized owing to decomposition, being unfit for human consumption. Proceedings instituted against Vendor.

†This eight gallon churn of Milk seized, being tainted with metal polish used in cleaning churn.

The total weight of Butchers' Meat and other Foodstuffs surrendered and seized during the year amounted to 4,197 stones, as compared with 3,563 stones in 1926, and 3,843 stones in 1925.

Of the 3,901 stones of Butchers' meat condemned, 3,210 stones were affected with Tuberculosis.

TUBERCULOSIS ORDER, 1925.

During the year no notifications were received from Farms within the area of animals suffering, or suspected of suffering, from Tuberculosis, as required under this Order.

In all cases where whole or part carcasses were affected with Tuberculosis, the responsible Official of the Authority from whence the animal came was notified. 62 such Notifications were sent out during the year, and in the majority of cases good results accrued.

THE MARGARINE ACT, 1887, AND THE SALE OF FOOD AND DRUGS ACT, 1899.

Number of Manufacturers	..	..	..	..	Nil
Number of Wholesale Dealers	..	..	..	..	25
Number of Premises Registered	..	..	..	..	25

BUTTER AND MARGARINE ACT, 1907.

There are 3 Butter making Factories in the town. Regular Butter making is not carried on, and only when Milk is surplus at these Dairies is Butter manufactured.

MAGISTERIAL PROCEEDINGS.

Number of case	Complaint	Result
1	Failing to comply with Notices served under Public Health Acts	Case withdrawn on payment of costs.
2	Do. do.	Order of Court for work to be completed within 21 days.
3	Selling Whisky containing 1.55% Added Water	Fined 20/- and costs.
4	Selling Whisky containing 6.39% Added Water	Fined 40/- and costs.
5	Contravening Butchers' half-day closing by selling meat on Wednesday afternoons	Fined 20/- and costs.
6	Selling Milk deficient in Fats to extent of at least 11.6%	Case dismissed upon payment of costs.
7	Selling Milk deficient in Fats to extent of at least 8.3%	Do.
8	Selling Cocoa containing only 72% Pure Cocoa as "Pure Cocoa"	Fined £5 and costs.

Number of case.	Complaint.	Result.
9	Contravening Section 73 of Public Health Acts, 1925, by giving toys in exchange for rags, bones, etc.	Fined 1/-.
10	Contravening Section 73 of Public Health Acts, 1925 by giving sweets in exchange for rags, bones, etc.	Fined 2/6 and costs.
11	Contravening Section 73 of Public Health Acts, 1925 by giving toys in exchange for rags, bones, etc.	Fined 40/- or one month imprisonment.
12	Do. do.	Discharged with caution.
13	Do. do.	Fined £5.
14	Do. do.	Fined £5.
15	Do. do.	Police unable to trace.
16	Do. do.	do.
17	Do. do.	Discharged with caution.
18	Selling Milk 16.6% deficient in Fats	Case dismissed.
19	Contravening Shops (Early Closing) Act	Fined 40/- and costs.
20	Do. do.	Fined 20/- and costs.
21	Contravening Section 28 of Milk and Dairies Order, 1926 by not cleansing churns prior to returning to Producer.	Case dismissed upon payment of costs.
22	Parking Caravans without sufficient sanitary accommodation, &c.	Work necessary to be completed within 3 months.
23	Do. do.	do.
24	Do. do.	do.
25	Do. do.	do.
26	Contravening Section 28 of Milk and Dairies Order, 1926, by not cleansing churns prior to returning to Producer	Fined 20/-.
27	Failing to comply with Notices served under the Public Health Acts	Case withdrawn upon payment of costs.
28	Do. do.	do.
29	Do. do.	One month granted for whole of work to be satisfactorily completed.
30	Do. do.	One week granted for work to be satis- factorily completed.

Number of case	Complaint	Result
31	For selling a Rabbit (without skin) in an unsound condition and unfit for human consumption	Fined £5 and costs.
32	Contravening Section 73 of Public Health Acts, 1925 by giving toys in exchange for rags, bones, etc.	Dismissed with a caution.
33	Do. do.	Fined 5/-.
34	Not complying with Notices served under Public Health Acts	One month granted for whole of work to be satisfactorily completed.

Thos. P. Dixon

Chief Sanitary Inspector.

PREVALENCE AND CONTROL OVER INFECTIOUS DISEASES.

During the year 1927 there were 4,835 cases of Infectious Disease notified, this being an increase of 990 cases compared with the previous year; there was a large increase in the number of cases of Measles and Smallpox, and a decrease in the cases of Scarlet Fever and Chickenpox.

The mortality rate from the chief Zymotic Diseases during the year 1927 was the low rate of 0.01 per 1,000 population, The rate in the previous year being 0.5 and the average for the previous five years 0.9.

The Death Rates per 1,000 population in the County Boroughs and Great Towns for certain diseases for 1927 were as follows :—

	Enteric Fever	Small- pox	Measles	Scarlet Fever	Whooping Cough	Diph- theria	Influ- enza
107 County Boroughs and Great Towns ..	0.01	0.00	0.12	0.01	0.10	0.08	0.49
Middlesbrough ..	0.01	0.00	0.29	0.01	0.03	0.06	0.49

Measles is the only Infectious Disease which shows any increase in the mortality rate compared with the other Great Towns.

NOTIFIABLE DISEASES (OTHER THAN)

DISEASE	TOTAL CASES NOTIFIED								Cases admitted to
	AT AGES								
	At all ages	0 to 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	Over 65 year	
Diphtheria	73	3	38	21	4	6	1	..	63
Erysipelas	96	2	3	7	6	28	41	9	..
Scarlet Fever	168	8	57	80	17	5	1	..	150
Smallpox	110	3	8	49	22	15	12	1	110
Pneumonia, Primary	280	13	42	51	41	63	47	23	..
Pneumonia, Influenzal	94	7	12	15	7	22	23	8	..
Chickenpox	811	58	325	419	8	..	..	1	..
Measles	2,658	204	1,523	915	15	1	..	..	..
Malaria	2	..	..	..	..	2	..	..	..
Puerperal Fever	14	..	..	..	4	10	..	..	..
Puerperal Pyrexia	26	..	..	..	13	13	..	..	..
Ophthalmia Neonatorum	21	21	..	..	..	..	..	..	..
Poliomyelitis	2	..	1	..	..	1	..	..	..
Encephalitis Lethargica	3	..	1	2	..	..	..	..	..
Cerebrospinal Fever	1	..	..	..	..	..	..	1	..
Enteric Fever	4	..	..	1	1	1	1	..	2
Total	4,363	319	2,010	1,560	138	167	126	43	331

BERCULOSIS) DURING THE YEAR 1927.

TOTAL DEATHS

	1 to 2	2 to 3	3 to 4	4 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	Over 65 years	Total
.	4	1	..	..	3	.	..	..	..	.	..	..	..	8
2	..	..	..	..	..	..	..	..	..	1	1	1	3	8
1	..	..	1	..	..	..	..	..	..	..	..	..	..	2
.
9	55	20	6	4	6	3	5	4	8	20	24	32	41	277
3	..	..	..	1	1	2	3	1	3	12	14	10	16	66
.
0	15	8	3	3	..	..	..	..	..	..	..	..	..	39
.
.	..	..	..	..	..	..	..	1	1	1	..	..	..	3
.
.
.	..	1	..	..	.	..	..	..	..	..	..	..	..	1
.	..	..	..	..	..	1	..	..	..	..	..	..	..	1
.	..	..	..	..	..	..	..	..	..	..	..	..	1	1
.	..	..	..	..	..	..	..	..	..	1	..	..	..	1
5	74	30	10	8	10	6	8	6	12	35	39	43	61	407

CHIEF ZYMOTIC DISEASES, 1927.

Attack and Mortality Rates per 1,000 population in the Wards
from certain Infectious Diseases during the year 1927.

WARD		Scarlet Fever	Diphtheria	Measles	Chickenpox	Smallpox	Enteric and Continued Fevers
Ayresome ..	Attack	1.92	0.82	16.29	6.12	0.21	0.14
	Mort.	..	0.14	0.14	..	..	..
Acklam ..	Attack	1.62	0.01	17.59	3.54	0.38	0.09
	Mort.	..	..	0.09	..	..	..
Cannon ..	Attack	1.32	0.41	25.03	4.38	0.99	..
	Mort.	0.09	0.09	0.49	..	..	..
Cleveland ..	Attack	1.22	0.78	16.93	4.19	1.39	..
	Mort.	0.08	0.08	0.09	..	..	..
Exchange ..	Attack	1.02	0.22	15.17	7.13	0.11	..
	Mort.	..	0.11	0.11	..	..	..
Grove Hill ..	Attack	1.57	0.45	15.57	9.28	0.22	..
	Mort.	..	0.07	0.07	..	..	..
Linthorpe ..	Attack	1.16	0.49	6.41	5.75	0.41	..
	Mort.	..	..	..	..	..	..
Newport ..	Attack	1.16	1.09	36.25	0.99	1.39	0.08
	Mort.	..	..	0.93	..	..	..
Ormesby ..	Attack	0.85	0.23	16.46	4.19	3.03	..
	Mort.	..	..	0.16	..	..	..
St. Hilda's ..	Attack	1.01	0.39	30.48	5.51	0.39	..
	Mort.	..	0.09	0.62	..	..	..
Vulcan ..	Attack	0.82	0.82	19.90	5.92	0.33	..
	Mort.	..	0.03	0.41	..	..	..
Whole Borough ..	Attack	1.26	0.55	19.89	6.07	0.83	0.03
	Mort.	0.01	0.06	0.29	0.00	0.00	0.01

Smallpox.

This disease was again more prevalent during the year, cases occurred in all the Wards but North Ormesby had a heavy proportion of cases. All cases were removed to Hemlington Hospital for treatment. There were no fatal cases. Everything possible has been done to educate the public regarding the symptoms of this disease but owing to the mildness of some of the cases many go unreported. There were 64 Primary and 223 Re-Vaccinations performed by the Medical Officer of Health under the Public Health (Smallpox) Regulations, 1917. Of the births during 1926, 39.21 per cent was successfully vaccinated. 40.9 per cent. were exempted from vaccination by a declaration of conscientious objection.

Measles.

This disease was very prevalent throughout the whole of the town during the year 1927. Measles is a notifiable disease and 2,658 notifications were received. There were 39 deaths registered from Measles, this being 1.4 per cent. of the notified cases. Special Nurses visit all notified cases of Measles and where necessary assist in the Nursing of severe cases and supply pneumonia jackets and other necessities. No School departments were closed owing to this disease, lists of children absent were received daily from the Schools and the houses visited and contacts who had not had the disease were excluded for three weeks. 57 Pneumonia Jackets were supplied free of cost in necessitous cases.

Chickenpox.

This is notifiable and owing to the prevalence of Smallpox all cases were visited in order to confirm the diagnosis. Many of the cases notified as Chickenpox were found to be cases of Smallpox.

Scarlet Fever.

There was remarkably little Scarlet Fever during the past year.

Diphtheria.

This disease was not very prevalent: seventy three cases were notified and sixty-three of these were admitted into the West Lane Fever Hospital. Of these sixty-three cases only 37.8 per cent were on Bacteriological examination found to be suffering from Diphtheria, the remainder giving negative findings. For further information see the Report of the Medical Officer to the Infectious Diseases Hospital.

Enteric Fever.

There were only four cases notified during the year. One of these occurred in Holgate Union Hospital and was treated there. Two were removed to West Lane Hospital and one was treated at home. These all recovered. There was one other case which was fatal. The death was registered as having been from Enteric Fever, this case

was not notified and received medical treatment at home. The possible source of infection was investigated in each case but without tracing the origin. Two of the cases probably contracted the disease outside the town.

Encephalitis Lethargica.

Three cases were notified during 1927 compared with five cases in the previous year. One of the three cases was fatal, this was a boy of 13 years of age who had Tubercular disease two years previous. There were no return cases.

Poliomyelitis.

Two cases were notified, one an infant of two years of age, was fatal, the other case was an adult male.

Cerebro Spinal Fever.

One case was notified and was fatal, this was a male of over 65 years of age. Bacteriological examination was inconclusive of Cerebro Spinal Fever. The case occurred in Holgate Hospital.

Malaria.

Two cases were notified during the year, one was an ex-serviceman who contracted Malaria in the East, the other was a man who works in a timber yard and the infection was derived from mosquitoes imported with a cargo of timber from Norway.

Influenzal Pneumonia.

There were 94 notifications received, these cases occurred during each month of the year, but were most prevalent during the winter months Jan., Feb., Nov. and Dec. 66 deaths were registered from Influenza, the majority being persons over 35 years of age. Influenza was more prevalent during the past year than during 1926, there being a large number of mild cases.

CLEANSING AND DISINFECTION OF VERMINOUS PERSONS.

The Sanitary Department work in co-operation with the School Medical Inspection Scheme. The homes of children found to be verminous are visited and where necessary the inmates are removed to the Cleansing Station and treated, the bedding and house being also dealt with. Numbers of cases of Scabies have also been treated in a similar way during the year.

OTHER DISEASES.

Cancer.

This disease has during recent years shown signs of increased mortality throughout the Country. In Middlesbrough the mortality rate is on the average .20 per 1,000 of the population below that of the Country as a whole.

The nett deathrates per 1,000 population for Middlesbrough compared with the annual death rates for England and Wales during the past seven years have been as follows :—

			Middlesbrough.	England & Wales.
			per 1,000 pop.	per 1,000 pop.
1921	..	..	0.92	1.21
1922	..	..	0.91	1.23
1923	..	..	1.20	1.26
1924	..	..	1.12	1.29
1925	..	..	1.05	1.33
1926	..	..	1.25	1.36
1927	..	..	1.10	

During the past seven years the registered deaths from Cancer and Malignant disease in Middlesbrough totalled 1,082 ; of these 127 were non-residents, these are persons brought from outlying districts into local institutions for operative treatment.

Age and Sex.

Of the 1,082 deaths 570 were males and 512 females. Between the ages of 25 and 45 years there were 70 female deaths to 40 male deaths, after forty five years of age the male deaths predominated.

Locality.

The distribution of the disease, from the mortality figures, show that it is fairly evenly present in all parts of the town. The greatest rate is in the St. Hildas Ward, where the number of cases is high. The majority of cases in this Ward occur in the Common Lodging Houses where a number of middle-aged and elderly men, who have led a hard life as ordinary labourers and are constantly shifting, are congregated. The Linthorpe Ward has one of the highest rates.

Housing.

This does not appear to influence the incidence of the disease as we find that in the residential districts the mortality approximates that of the older parts of the town with the one exception of the St. Hildas Ward quoted above. The number of deaths in a street depends on the number of houses in the street, *e.g.*, during the past 25 years there were :—

31	Fatal Cases in	Cannon Street.
26	„ „	Victoria Road.
25	„ „	Newport Road.
24	„ „	Grange Road, East and West.
23	„ „	Linthorpe Road.
15	„ „	Borough Road, East and West.
15	„ „	Milbank Street.
13	„ „	Church Street.
13	„ „	Ernest Street.
13	„ „	Gladstone Street.
13	„ „	Parliament Road.

Houses with two or more fatal cases during the period 1902 to 1927.

There were 68 streets in which the same house had two or more cases during the above period.

5	Streets in which there were 2 houses with 2 cases.
3	„ „ 2 „ 2 and 3 cases.
2	„ „ 2 „ 2 and 4 cases.
1	Street „ 3 „ 2, 2 and 3 cases.
1	„ „ was 1 „ 8 cases (Common Lodging House).
1	„ were 5 „ 6, 6, 4, 3 and 2 cases (Common Lodging Houses).
1	„ „ 5 „ 5, 3, 3, 2 and 2 cases (Common Lodging Houses).

The intervals between secondary cases in a house were as follows :—

12 Houses secondary cases occurred in 1 year.

12	„	„	„	4 years
9	„	„	„	2 „
7	„	„	„	5 „
6	„	„	„	6 „
7	„	„	„	7 „
4	„	„	„	3 „
4	„	„	„	8 „
4	„	„	„	9 „
4	„	„	„	14 „
2	„	„	„	11 „
2	„	„	„	12 „
2	„	„	„	13 „
2	„	„	„	15 „
2	„	„	„	16 „
2	„	„	„	17 „
1 House	„	„	„	10 „
1	„	„	„	19 „
1	„	„	„	20 „

3 Houses „ „ in the same year.

In 15 houses the second case occurred within 1 year of the first death.

12 „ „ „ 4 years of the first death.

The figures for the largest groups show the same proportional intervals, indicating that the secondary death occurs either very soon after the first case or after an interval of 4 to 5 years.

Cases occurring in Common Lodging Houses have been left out for reasons stated previously.

Inquiries have been made in many instances into the circumstances of these cases, but owing to the lapse of time since the death and to removals and other causes very little useful information can be obtained. It was found that in many cases the death took place in an Institution, the case having been nursed at home until the later stages of the disease.

The localisation and duration of the disease in certain ascertained instances was as follows :—

TABLE I.—Deaths from Cancer (Two or more Cases in the same House)

Street	No. of house	Relationship	Age	Sex	Date	Localisation	Length of Illness	Previous Cases	Length of Residence	Had patient Attended or Nursed at previous Case
Crown	3	Not known	59	M	18-12-16	Tongue	House Demolished			
"	3	"	74	F	23-2-20	Gall Bladder				
"	3	"	62	F	22-1-25	Breast			14 yrs.	
Wear	17	Son-in-law	46	M	25-3-20	Liver	8 wks.	..	7 yrs.	..
"	17	Mother-in-law	71	F	24-9-25	Breast	6 mths.	..	..	..
Kensington Road	19	Son	23	M	31-4-21	Kidney	3 mths.	..	..	..
"	19	Father	65	M	15-7-25	Liver	12 mths.	Son	20 yrs.	..
Westward	10	Not known	42	F	27-1-21	Stomach	No Information			
"	10	"	47	F	1-4-24	Breast	2 yrs.	..	10 yrs.	Yes, 3yr. before
Warwick	3	Wife	61	F	11-4-21	Liver	2 yrs.	Wife	10 yrs.	..
"	3	Husband	65	M	19-7-21	Stomach	1 yr.	..	6 yrs.	..
Warren	10	Husband	71	M	25-12-21	Larynx	6 mths.	Husband	6 yrs.	Husband
"	10	Wife	71	F	13-2-27	Stomach	14 yrs.	No	4 yrs.	..
Whitehouse	67	Husband	60	M	24-1-21	Bladder	12 yrs.	Husband	10 yrs.	Husband
"	67	Wife	71	F	20-2-27	Colon	12 mths.	..	15 yrs.	..
Ernest	62	Husband	63	M	25-2-22	Signoid	12 mths.	Husband	17 yrs.	Husband
"	62	Wife	57	F	9-5-24	Stomach	12 mths.	First wife	6 yrs.	Nursed wife
St. Barnabas Rd.	12	Householder	69	M	17-7-22	Neck	8 mths.			7 yrs.
"	12	Lodger	45	M	28-11-25	Stomach	8 mths.	..	3 yrs.	Nursed previous case
Stainton	49	Husband	64	M	30-8-22	Bladder	No Information		..	..
"	49	Wife	60	F	16-5-22	Stomach	few days		..	..
Stephenson, N.O.	73	Lodger	70	M	1-12-23	Stomach	9 wks.	..	4 yrs.	..
"	73	Lodger	67	M	4-1-24	Tonsil	8 mths.	..	9 yrs.	Nursed previous case
Beaumont Road	91	Father	60	M	15-1-24	Rectum	8 mths.	Father & mother	10 yrs.	..
"	91	Daughter	38	F	13-4-25	Breast	8 mths.	Father	10 yrs.	Attend. father
Leven	47	Wife	63	F	31-8-24	Stomach	2 yrs.	..	19 yrs.	..
"	47	Husband	68	M	8-8-25	Stomach	Indef.	Wife	20 yrs.	..
Milbank	6	Sister	56	F	13-5-25	Pancreas	3 mths.	..	17 yrs.	..
"	6	Sister	74	F	22-1-27	Stomach	3 mths.	Sister	19 yrs.	Sister
Spencer	72	Wife	48	F	19-11-24	Stomach	Indef.	..	16 yrs.	..
"	72	Husband	57	M	30-3-25	Fauces	Indef.	..	17 yrs.	..
Fidler	17	Lodger	41	F	26-12-25	Uteri	No Information		..	..
"	17	Lodger	63	M	4-8-25	Mouth	..	..	..	..
Jamieson	50	Not known	65	M	4-12-26	Stomach	3 yrs.	..	7 mths.	..
"	50	"	58	F	28-10-27	Uterus, &c.		..		..

It will be seen that out of 28 of these cases 14 were husbands and wives. 8 were either son and father, son and mother, father and daughter or sisters, the remainder were persons lodging in the house.

Of the cases of husband and wife both dying from Cancer the revealed facts relating to the two deaths were :—

Localisation of Disease.	Relationship.	Date of Death.	Duration of Illness.	Interval between Deaths.
Liver	Wife	1921	2 years	same year
Stomach	Husband	1921	2 years	
Larynx	Husband	1921	1 year	6 years
Stomach	Wife	1927	6 months	
Bladder	Husband	1921	1½ years	6 years
Colon	Wife	1927	12 years	
Sigmoid	Husband	1922	1 year	2 years
Stomach	Wife	1924	1 year	
Bladder	Husband	1922	?	same year
Stomach	Wife	1922	?	
Stomach	Wife	1924	2 years	1 year
Stomach	Husband	1925	?	
Stomach	Wife	1924	?	1 year
Fauces	Husband	1925	?	

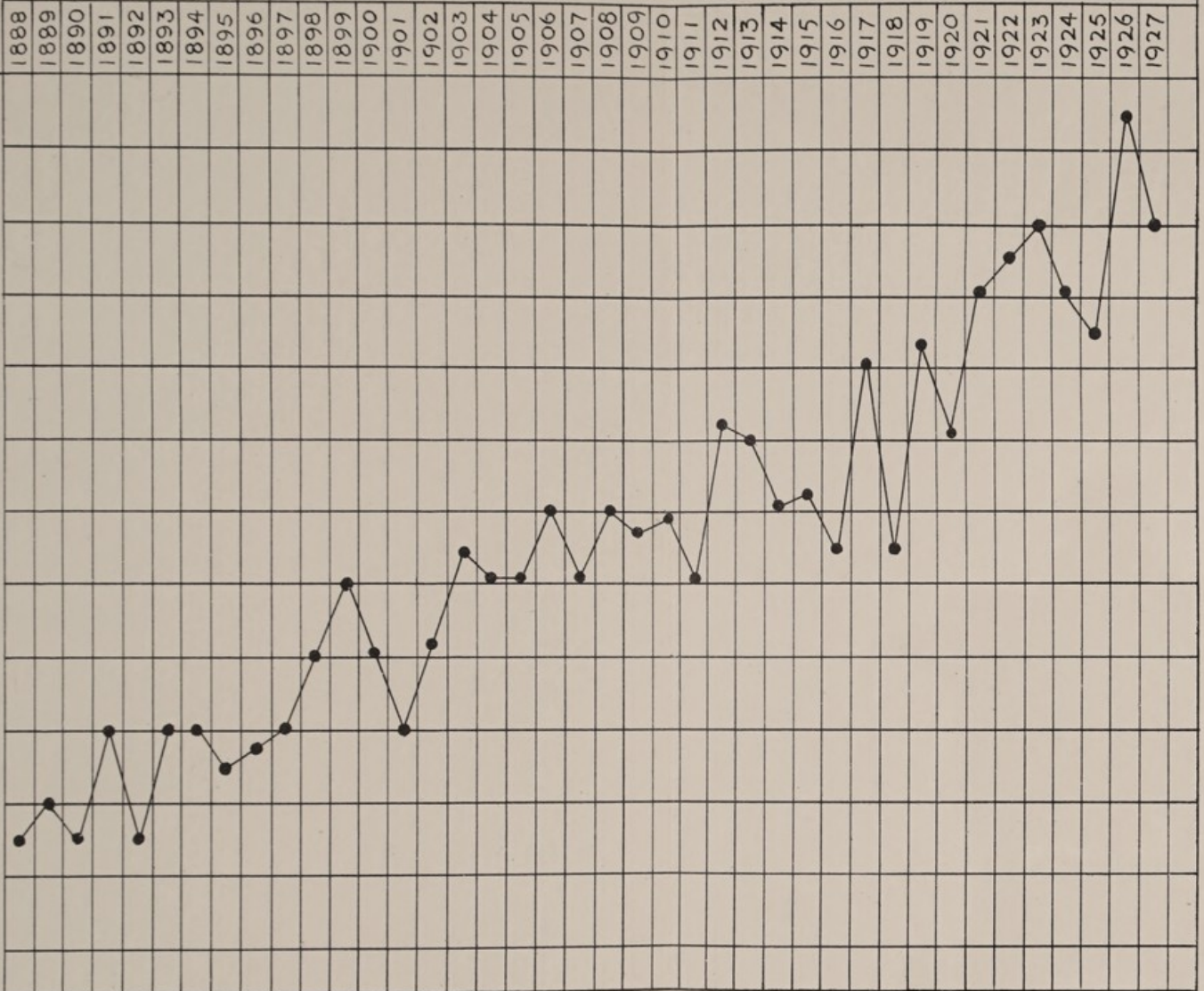
If any deduction can be made from these few cases, which were taken at haphazard, it would appear that there is some indication of the second case being contracted from the former case and the localisation of the disease in the secondary case points to the digestive system as the entrance of the infection, this might well occur through neglect of precautionary measures by failing to cleanse the hands after attending the patient before taking food. The only other feasible explanation of these secondary cases would be that they were both living on the same type of diet.

TABLE II.—Deaths from Cancer—Localisation of Disease.

LOCALISATION	1921		1922		1923		1924		1925		1926		1927		TOTAL		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Total
Stomach ..	13	10	16	8	19	11	16	18	21	11	23	4	14	7	122	69	191
Liver ..	3	5	5	4	5	3	4	4	6	6	9	3	9	5	41	30	71
Uterus ..	..	15	..	15	..	26	..	17	..	19	..	16	..	14	..	122	122
Breast ..	..	9	..	10	..	9	..	11	..	12	..	16	..	16	..	83	83
Intestines, &c.	5	5	7	6	13	12	9	10	8	6	22	13	13	15	77	67	144
Throat ..	5	2	5	2	7	3	8	..	1	4	4	1	6	2	36	14	50
Neck ..	2	2	6	..	1	1	1	..	..	..	1	..	3	1	14	4	18
Pancreas ..	1	1	3	1	5	3	7	1	1	2	3	1	6	3	26	12	38
Rectum ..	7	3	6	4	8	2	9	1	2	5	5	2	9	5	46	22	68
Mouth ..	3	..	3	..	2	..	4	..	1	..	5	..	2	..	20	..	20
Face, Jaws, &c.	1	1	4	..	3	..	4	1	5	1	5	1	2	1	24	5	29
Tongue ..	4	1	5	..	5	..	4	..	7	1	8	2	5	1	38	5	43
Lung ..	2	..	3	..	1	..	2	1	2	2	1	..	2	1	13	4	17
Bladder ..	5	2	4	4	2	3	3	..	1	1	4	4	7	1	26	15	41
Prostate, &c.	2	..	7	..	..	..	2	..	1	..	8	..	5	..	25	..	25
Vulva ..	..	1	..	1	..	2	..	..	..	..	..	1	..	..	..	5	5
Kidney ..	1	1	1	..	..	..	2	..	..	1	..	..	3	1	7	3	10
Ovary ..	..	4	..	..	..	1	..	..	..	..	..	..	..	2	..	7	7
Peritoneum ..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	2	2
Abdomen ..	..	..	..	..	1	1	..	..	..	1	..	..	1	..	2	2	4
Pylorus ..	..	..	..	..	4	..	..	1	1	1	..	..	1	..	6	2	8
Scrotum ..	..	..	..	..	1	..	..	..	..	..	1	..	1	..	3	..	3
Leg, Foot, &c.	..	..	..	..	..	..	1	1	1	1	..	2	..	2	2	6	8
Arm ..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1
Head ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
Eye ..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1	1	2
Fauces ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Ileum ..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1
Pelvis ..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	1
Larynx ..	..	..	..	..	..	..	..	..	..	..	3	3	6	1	9	4	13
Pharynx ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Scapula ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Hand ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Thyroid ..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	1	2
Tonsil ..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1
Spine ..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1
Penis, &c.	..	..	..	..	..	..	..	..	..	..	1	..	3	..	4	..	4
Nose ..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	2
Spleen ..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	2
Other forms ..	5	2	1	2	5	3	3	6	1	5	1	4	1	1	17	23	40
Total ..	59	64	76	57	82	81	80	73	62	82	110	75	101	80	570	512	1,082
	123		133		163		153		144		185		181		1,082		

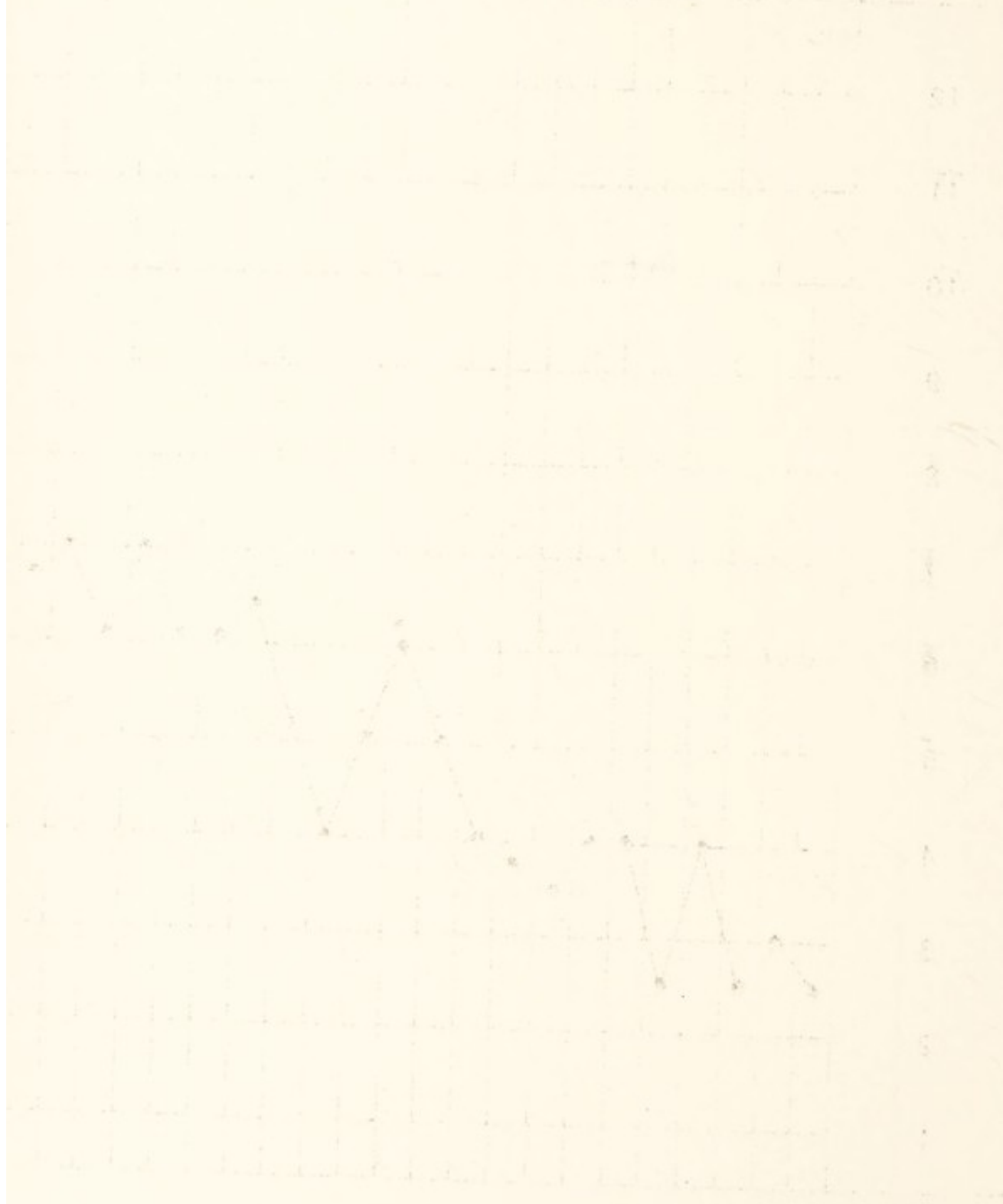
MORTALITY FROM CANCER—1888 TO 1927.

PER
10,000
POP.



MORTALITY FROM CANCER

1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926 1927 1928 1929 1930 1931 1932 1933 1934 1935 1936 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954 1955 1956 1957 1958 1959 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042 2043 2044 2045 2046 2047 2048 2049 2050 2051 2052 2053 2054 2055 2056 2057 2058 2059 2060 2061 2062 2063 2064 2065 2066 2067 2068 2069 2070 2071 2072 2073 2074 2075 2076 2077 2078 2079 2080 2081 2082 2083 2084 2085 2086 2087 2088 2089 2090 2091 2092 2093 2094 2095 2096 2097 2098 2099 2100



Localisation.

It will be noted that practically one half of the cases *i.e.*, 536 out of 1082 were due to disease of the digestive tract, of these 352 were males and 184 females. The number of females in which the disease attacked the mouth and throat is small compared with the male cases. In the female the chief site of the disease is the uterus and the breast, the stomach coming third in order.

Occupation.

The occupation of Males dying from Cancer include almost all trades, but the following trades head the list :—

Labourers (all classes)	152
Iron and Steel Workers	75
Clerical Workers	22
Boiler Makers	21
Fitters	20
Engine Drivers (all types) ..	14

This corresponds fairly with the proportion of men employed in these different trades and does not point to any particular trade as being prone to produce Cancer. Of the Female deaths, there were none employed in any trade or industry, the whole of the cases being those engaged in household duties or children.

The deductions which may be drawn from the above figures are :—

1. That the disease does not attack any particular class of persons and that housing and financial status and locality are not predisposing causes, *e.g.*, the death rates for Linthorpe and Grove Hill are higher than for Vulcan and Cannon Wards.
2. That secondary and return cases are frequent in the same family and house.
3. That the localisation of the disease is by far the most frequent in the digestive tract.
4. That the only common cause in these return cases is either contagion or diet.
5. That irritation due to wrong diet or to mechanical causes is the chief cause of malignant disease.
6. That secondary deaths occur either very shortly after the first case or after a lapse of four or five years.

During the month of November, 1927, the Yorkshire Council of the British Empire Cancer Campaign held a Cancer Exhibition in Middlesbrough. Great interest was shown by those visiting the exhibition, and the daily lectures were well attended. A large amount of literature was distributed and from a general educational point of view the exhibition was a great success.

TABLE III.—Registered Deaths from Cancer

Year	AT AGES																					
	Under 1 Year		1-5		5-15		15-25		25-45		45-65		Over 65 Years		Total		Ayresome		Acklam		Cannon	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1921	..	..	..	..	..	..	1	2	7	12	33	30	18	20	59	64	5	7	5	5	3	7
1922	1	..	..	..	1	..	..	..	4	10	44	35	26	12	76	57	3	5	6	5	9	2
1923	..	..		..	..	..	2	..	3	12	43	39	34	30	82	81	4	6	5	5	6	2
1924	..	..	..	..	..	..	2	1	11	7	48	43	19	22	80	73	5	6	4	3	4	8
1925	..	..	1	..	..	..	..	..	3	12	35	45	23	25	62	82	6	6	2	4	4	8
1926	..	..	..	..	..	..	1	1	5	11	58	33	46	30	110	75	8	10	7	..	7	9
1927	..	..	..	..	..	..	2	..	7	6	52	41	40	33	101	80	5	10	8	6	7	6
Totals	1	..	1	..	1	..	8	4	40	70	313	266	206	172	570	512	36	50	37	28	40	42
	1		1		1		12		110		579		378		1,082		86		65		82	
Mortality per 1,000 population																	0.83		0.86		0.93	

and Malignant Disease 1921 to 1927.

WARDS																					Death Rate per 1,000 popula- tion
Cleveland		Exchange		Grove Hill		Linthorpe		Newport		Ormesby		St. Hilda's		Vulcan		Non- Residents		Total			
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	T	
9	6	2	5	2	3	3	5	2	6	5	7	10	5	4	4	9	4	59	64	123	0.92
5	6	2	6	3	6	7	4	5	5	4	5	15	7	9	2	8	4	76	57	133	0.91
7	5	5	5	9	3	6	13	8	6	10	9	10	12	8	6	4	9	82	81	163	1.20
10	11	10	4	3	8	4	3	7	7	4	9	14	2	5	3	10	9	80	73	153	1.12
5	6	6	7	5	7	2	9	9	7	6	5	8	5	3	10	6	8	62	82	144	1.05
4	7	4	2	8	8	10	8	7	5	7	11	20	6	15	2	13	7	110	75	185	1.25
10	6	2	6	5	7	5	6	7	6	7	6	14	7	5	4	26	10	101	80	181	1.10
50	47	31	35	35	42	37	48	45	42	43	52	91	44	49	31	76	51	570	512	..	
97	66	77	85	87	95	135	80	127	1,082												
1.17	1.01	0.94	1.05	0.93	1.02	1.45	0.91	..	1.15												

Report of the Medical Officer of the Fever Hospital, West Lane, for 1927.

SCARLET FEVER.

During 1927 there was a further decline in the incidence of Scarlet Fever in Middlesbrough, 231 cases being admitted to West Lane Hospital compared with a total of 416 during the preceding twelve months. Of that number 157 came from the County Borough of Middlesbrough itself, the remaining 74 from outlying districts.

An analysis of the cases showed a total of

221 Scarlet Fever
4 Scarlet Fever and Measles.
1 Scarlet Fever and German Measles.
1 Scarlet Fever, Chickenpox and Measles.
2 Scarlatinal Nephritis.
2 Scarlet Fever and Chickenpox.

231

Of the 231 cases two died. One, a child of eight months, succumbed to broncho-pneumonia after six days. The other, a boy of $3\frac{1}{2}$ years, was admitted to hospital in a moribund condition. He too fell a victim to broncho-pneumonia.

Complications included :—

Broncho-pneumonia	..	8
Adenitis	.. ..	5
Rhinitis	.. ..	10
Otorrhoea	.. ..	10
Nephritis	.. ..	5
Abscess	.. ..	7
Pleurisy	.. ..	1
Arthritis	.. ..	3
Mastoiditis	.. ..	1

Serum was administered to 51 patients with the same excellent results as the previous year, early injection almost invariably eliminating complications. Six cases manifested serum rashes after 3, 5, 5, 9, 9, and 10 days respectively, but there was no constitutional disturbance. The doses varied from 10 to 25ccs of the Concentrated Scarlet Fever Antitoxin of Parke, Davis & Co. There was one return case due to rhinitis developing after the patient had left hospital.

The Dick test was not made use of during 1927 because the supply of toxin of Parke, Davis & Co. was exhausted.

DIPHTHERIA.

During the year 1927, sixty-six patients were admitted to West Lane Hospital suffering from diphtheria. Of that number sixty-one cases came from Middlesbrough, while the remaining five came from outlying districts. In addition there were two admissions diagnosed as suffering from diphtheria and measles. One of the sixty-six patients was found on examination to be infected with syphilis, and made a speedy recovery once specific therapy had been begun. Of the total, seven died. Out of that number four succumbed within twenty-four hours of admission, one of them requiring the operation of tracheotomy owing to marked dyspnoea. One child died within 48 hours of entering the hospital after tracheotomy had been performed, another 72 hours after admission, and a third after a lingering illness of two months from cancrum oris.

Twenty-five of the sixty-six cases were found on bacteriological examination to harbour the Klebs-Loeffler Bacillus, the remainder giving negative findings.

Anti-Diphtheritic Serum was administered in every instance, the doses varying from 2,000 to 32,000 units injected intramuscularly. In five cases urticarial rashes occurred on the 2nd, 3rd, 6th, 6th and 10th days respectively following the injection. These were attributed to a faulty strain of serum which was at once replaced.

Complications included :—

(1) Broncho-pneumonia	..	..	..	1
(2) Albuminura .. ..	..	..	..	5
(3) Paralysis of the Palate	..	..	..	3
(4) Cancrum oris .. ..	..	..	..	1
(5) Myocarditis .. ..	..	..	..	4
(6) Auricular Fibrillation	..	..	..	3
(7) Paroxysmal Tachycardia	..	..	..	1
(8) Mural Endocarditis ..	..	..	..	1

The following types of diphtheria were encountered :—

(1) Faucial	..	..	..	..	53
(2) Laryngeal	..	..	..	..	6
(3) Faucial and Laryngeal	..	..	..	..	6
(4) Nasal	..	..	..	..	1

The Schick Test was performed on twelve members of the Staff who gave the following results :—

Name.	Age.	Toxin.	Control.
—	—	—	—
E.H.	20	—	—
L.L.	18	+	—
S.S.	17	—	—
I.C.	20	+	+
M.C.	20	—	—
A.J.	18	+	—
M.L.	17	+	—
G.W.	18	+	+
D.S.	18	—	—
G.R.	20	+	—
E.H.	22	—	—
A.F.	26	—	—

+ Positive. — Negative.

A definitely negative reaction was found in 6 of the 12 cases, a psuedo-positive reaction due to sensitisation to the proteins of the Diphtheria Bacillus occurred in 2 instances, while a mild positive reaction was demonstrated in the remaining four nurses.

Active immunisation by toxin-antitoxin was not made use of in 1927.

TYPHOID FEVER.

Six cases were sent into West Lane Hospital diagnosed as suffering from Typhoid Fever, while another case was diagnosed as Paratyphoid. Of that number, three gave a positive reaction to the Widal test on blood examination, the remaining three as well as the Paratyphoid patient revealing negative blood findings. One of the cases was found to be suffering from lobar pneumonia. All recovered.

URAEMIA.

A man aged 47 was admitted to hospital in an unconscious condition and was found to have uraemic convulsions. He was transferred to Holgate Hospital eight days later.

SMALLPOX.

On March 23rd, a man aged 53 was admitted with the diagnosis of Chickenpox and Ischio-rectal Abscess. The latter condition was treated by operation, and the patient was then moved to Hemlington Smallpox Hospital for further treatment as a case of Smallpox.

During 1927 four Smallpox contacts were isolated at West Lane Hospital.

MEASLES.

Two cases of Measles were admitted to Hospital during 1927. One of them, a child of fourteen months developing cellulitis and required operation. This latter case died within 24 hours of admission. The first patient made a good recovery.

W. L. TULLIS, M.D.,

Resident Medical Officer.

Cases of Infectious Disease treated at the Corporation Hospitals during 1927.

DISEASE	Cases admitted and Deaths per month																											
	Remaining in Hospital December 31st, 1926.	January		February		March		April		May		June		July		August		September		October		November		December		Totals		
		Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	
West Lane Hospitals—																												
Scarlet Fever ..	51	26	..	19	1	18	..	14	..	14	..	15	..	13	..	19	..	19	..	22	..	33	..	17	1	280	2	
Scarlet Fever and Chickenpox ..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Diphtheria ..	4	8	3	5	..	4	..	5	1	4	1	2	..	8	2	5	..	7	..	7	..	6	..	5	..	70	7	
Diphtheria and Measles ..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
Measles ..	..	..	..	..	..	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
Chickenpox ..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Enteric Fever ..	1	..	..	2	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	1	..	..	8	..
Smallpox Contacts ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	1	..	..	..	..	..	..	4	..
Total ..	56	35	3	27	1	27	1	20	1	19	1	17	..	21	2	24	..	30	..	30	..	40	..	23	1	369	10	
Tuberculosis Hospital—																												
Pulmonary—																												
Male ..	14	5	..	5	..	7	1	4	..	5	1	10	..	8	1	4	..	1	2	11	1	9	..	4	..	87	6	
Female ..	12	8	4	5	1	8	1	5	2	2	..	9	2	6	1	4	1	4	..	6	1	6	..	2	2	77	15	
Non-Pulmonary																												
Male ..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	3	..
Female ..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	2	1
Total ..	26	14	4	10	1	15	2	9	2	8	1	19	3	14	2	8	1	5	2	18	2	17	..	6	2	169	22	
Hemlington Hospital—																												
Smallpox ..	129	151	..	116	..	77	..	41	..	99	..	72	..	30	..	2	..	20	..	28	..	21	..	13	..	799	..	
Contacts ..	4	1	..	1	..	1	..	..	..	1	..	..	..	1	..	..	..	..	1	..	3	..	1	..	..	14	..
Observation ..	..	1	..	..	..	..	..	1	..	2	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	6	..
Total ..	133	153	..	117	..	78	..	42	..	102	..	72	..	31	..	2	..	21	..	29	..	25	..	14	..	819	..	

Cases removed to Hospital from Outside Areas during 1927.

WEST LANE HOSPITAL				Scarlet Fever	Enteric Fever	Diph- theria	Paratyphoid Fever	Total
Thornaby	..	..	..	38	1	4	1	44
Crathorne	..	..	..	1	..	..	..	1
Stokesley	..	..	..	13	1	..	..	14
Yarm	..	..	..	2	..	..	..	2
Worsall	..	..	..	..	..	1	..	1
East Rounton	..	..	..	2	..	..	..	2
Hutton Rudby	..	..	..	5	..	..	..	5
Bilsdale	..	..	..	2	..	..	..	2
Leven Bridge	..	..	..	1	..	..	..	1
Potto	..	..	..	3	..	..	..	3
Seamer	..	..	..	4	..	..	..	4
Ingleby Barwick	..	..	..	1	..	..	..	1
Acklam	..	..	..	3	..	..	..	3
Nunthorpe	..	..	..	1	..	..	..	1
Total ..				76	2	5	1	84

Hemlington Smallpox Hospital.

Thornaby	..	1	Langley Moor	..	12	Murton	..	..	3
West Hartlepool	10		Ferryhill	..	151	Blackhall	..	..	3
Shotton	..	1	Horden	..	43	Hartlepool	..	..	11
Coxhoe	..	6	Cornforth	..	49	Windlestone	..	..	21
Chilton	..	14	Brandon	..	21	Ushaw Moor			3
Easington	..	116	South Hetton	..	18	Browney	..	..	4
Bearpark	..	9	Pity Me	..	1	Esh Winning	..	..	2
Meadowfield	..	2	Wheatley Hill	..	7	Crossgate Moor	..	..	1
Waterhouses	..	5	Thornley	..	2	Hedley Hill	..	..	1
New Brancepath	11		Garmensway	..	1	Littleburn	..	..	1
New Seaham	..	3	Dalton-le-Dale	..	2	East Howle	..	..	1
Kimblesworth		4	Framwellgate-Moor		1	Haswell	..	..	21
Wynward	..	1							

Total—309.

Report of the Tuberculosis Officer for the Year 1927.

During the year 194 persons died in Middlesbrough from Tuberculosis, 101 males and 93 females.

Of the total 154 died from Pulmonary Tuberculosis and 40 from Tuberculosis of other parts of the body.

The death rate for the year was 14.52 per 10,000 of the population. Although this shows an increase over the past year, the death rate from this disease is less than that of the years 1924 and 1925.

INCIDENCE.

The number of new cases notified as arising in the town during the year was 472. This shows a decrease of 60 as compared with the number notified in 1926.

The following table shows the number of deaths and notifications in the various Wards and the equivalent death and notification rates for each Ward. It will be seen that the two extremes, Linthorpe on the one hand and Newport on the other, show considerable divergence in both notification and death rates.

**Deaths in each Ward as compared with Notifications 1927, and Notification
and Death Rates per 1,000 Population.**

WARD.	Notifications 1927	Deaths 1927	Ward Population	Notification Rate per 1000 Population	Death Rate per 1,000 Population
Ayresome	39	12	14,550	2.68	.82
Acklam	27	14	10,462	2.58	1.33
Cannon	47	17	12,103	3.88	1.40
Cleveland	31	9	11,459	2.70	1.78
Exchange	27	14	8,830	3.05	1.58
Grove Hill	30	12	13,360	2.24	.89
Linthorpe	26	6	12,002	2.16	.49
Newport	80	43	12,911	6.19	3.33
Ormesby	46	24	12,880	3.57	1.86
St. Hilda	79	22	12,883	6.13	1.70
Vulcan	40	16	12,160	3.20	1.31

DISPENSARY TREATMENT.

The accommodation of the Dispensary was considerably increased by the taking over of the upper floor formerly used as the premises of the National Health Insurance Committee. This relieves the condition of congestion which impeded the work of the dispensary in previous years. There were 8,918 attendances during the year and the staff paid 7,511 visits to the homes of tuberculous persons. A considerable number of cases of non-pulmonary tuberculosis especially among children through the medium of the dispensary received artificial sunlight treatment at Holgate Union Hospital and the Voluntary Hospitals.

This was combined in many cases with Tuberculin treatment given at the dispensary, with gratifying results in almost every case.

RESIDENTIAL TREATMENT.

The number of patients who received treatment in West Lane Sanatorium was 172. Every bed was occupied practically continuously and it would appear that some extension of the Sanatorium will be necessary in the near future.

22 persons died in the Institution and of 119 discharged, 95 showed considerable improvement at the end of the year. It is impossible to say in how many of these patients the improvement will persist as undoubtedly deterioration will occur in a certain proportion of them who return to a environment of home or occupation detrimental to their disease.

Six beds are still retained for children suffering from surgical tuberculosis in Broomlands (Guardians) Hospital.

VOLUNTARY CARE COMMITTEE.

The work of this Committee has been carried on as usual. 36 patients received a holiday of four weeks duration at Barnaby Moor with beneficial results.

An annual Report was published in April, giving details of the expenditure and work supervised by this Committee showing the numerous directions in which their efforts are applied for the benefit of tuberculous persons in the town.

TUBERCULOSIS AND BRONCHO-PNEUMONIA COMPARED.

A report was made to the Sanatorium Committee by the Medical Officer of Health on the comparative death rates from Broncho-Pneumonia in the various Wards for the year 1926. As it would be of considerable interest to find the relation of similar figures for Tuberculosis, such a table was drawn out, and in addition a third series to show the relative number of houses per acre in the respective Wards. It shows that generally where there is a high mortality from Broncho-Pneumonia there is also a high mortality from Tuberculosis and that both rates are high when the houses are congested.

WARD	Popu- lation	Deaths from Broncho- Pneumonia, 1926	Deaths from Tubercu- losis, 1926	Death Rate per 10,000 Broncho- Pneumonia	Death Rate per 10,000 Tuber- culosis	Houses per acre
Ayresome ..	14,550	4	20	2.75	13.75	30
Acklam ..	10,462	7	8	6.69	7.64	30
Cannon ..	12,103	29	17	23.96	14.04	43
Cleveland ..	11,459	12	14	10.48	12.21	30
Exchange ..	8,830	5	9	5.66	10.19	33
Grove Hill ..	13,360	4	8	2.99	5.98	12
Linthorpe ..	12,002	6	9	5.00	7.49	15
Newport ..	12,911	27	25	20.91	19.36	45
Ormesby ..	12,880	5	12	3.88	9.31	40
St. Hildas ..	12,883	28	31	21.73	24.05	45
Vulcan ..	12,160	16	19	13.16	15.62	40

F. J. Henry.

M.B., D.P.H., F.R.C.S.,

Tuberculosis Medical Officer.

DEATHS FROM TUBERCULOSIS, 1927.

					SEX.	
AGE PERIOD					MALE	FEMALE
PULMONARY	..	..	Under 15 years	..	11	16
			15 to 25 years	..	14	19
			25 to 35 years	..	11	19
			35 to 45 years	..	18	13
			Over 45 years	..	28	5
			Total over 15 years	..	71	56
	Insured	..	..	..	41	8
	Non-Insured	..	..	..	41	64
NON-PULMONARY	..	..	Under 15 years	..	12	14
			Over 15 years	..	7	7
TOTAL DEATHS :						
	PULMONARY	..	..	..	82	72
	NON-PULMONARY	..	..	..	19	21
	TOTAL	..	..	..	101	93

INSTITUTIONAL TREATMENT, 1927

West Lane Hospital :—

PULMONARY	..	..	Male	..	83	Female	..	76	Total	159
NON-PULMONARY	..	..	Male	..	6	Female	..	4	Total	10
(3 Males admitted for observation)										3
									Total	172

Condition of Patients Discharged :—

Quiescent	..	..	..	..	1
Much Improved	..	..	..	..	95
No material improvement	..	..	..	..	23
Died in Institution	..	..	..	..	22
Total					141

Tuberculosis Dispensary :—

Total New Cases Examined (excluding Contacts) .. 477

Diagnosis	362
Notified	95
Pensioners	4
Transfers	10
Voluntary	6

477

Attendances, including Contacts	8,918
Home Visits	7,511
Sputum Examinations	446
X-Ray Examinations	13
Urine Examinations	13

TUBERCULOSIS.**NEW CASES AND MORTALITY DURING 1927.**

Age Periods	NEW CASES.				DEATHS.			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	Male	Female	Male	Female	Male	Female	Male	Female
0—1 year	1	..	..	4	1	..	..	3
1—5 years	12	15	24	13	6	6	9	5
5—10 „	32	30	14	18	1	2	2	4
10—15 „	13	13	7	6	3	8	1	1
15—20 „	21	18	7	3	8	7	1	1
20—25 „	10	21	..	2	7	11	1	..
25—35 „	33	37	3	4	11	19	2	3
35—45 „	32	19	1	..	18	13	1	1
45—55 „	20	9	3	1	21	3	2	1
55—65 „	12	4	1	1	4	2	..	2
Over 65 „	7	..	1	..	3	..	..	..
Total ..	193	166	61	52	83	71	19	21

The ratio of Non-notified Tubercular deaths to the total Tubercular deaths is 9.79%.

Report of the Venereal Diseases Medical Officer for the Year 1927.

CLINIC.—7, Grange Road, Middlesbrough.

STAFF.—Medical Officer ; Two Male Attendants ; Two Nurses.

HOURS.—(Medical Officer in attendance).

MALES	..	Monday,	..	8-30 a.m. and 5-30 p.m.
		Friday	..	8-30 a.m. and 5-30 p.m.
FEMALES	..	Wednesday..		5-30 p.m.

IRRIGATION HOURS FOR MALES (Attendants only) :

Monday	..	8-30 a.m. and 5-30 p.m.
Tuesday	..	8-30 a.m. and 5-30 p.m.
Wednesday	..	8-30 a.m.
Thursday	..	8-30 a.m. and 5-30 p.m.
Friday	..	8-30 a.m. and 5-30 p.m.
Saturday	..	8-30 a.m.

Number of Cases under Observation and Treatment on January 1st, 1927.

Syphilis		Soft Chancre		Gonorrhoea		Other cases		Total		Total all Cases
Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	
68	31	..	..	120	14	23	2	211	47	258

**Number of Cases and the Diseases they were suffering from,
dealt with for the first time during the Years 1919 to 1927.**

Year	Syphilis		Soft Chancre		Gonorrhoea		Other Cases		Total Cases		Grand Total
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
1919	131	56	7	..	121	6	42	7	301	69	370
1920	274	54	35	..	293	22	178	14	780	90	870
1921	132	50	6	..	209	11	143	..	490	61	551
1922	141	15	21	..	159	9	161	13	482	37	519
1923	69	29	6	..	206	2	142	16	423	47	470
1924	75	20	7	..	200	7	113	26	395	53	448
1925	79	30	11	..	205	9	129	14	454	53	507
1926	77	32	12	1	236	18	130	14	465	65	530
1927	123	30	16	..	239	13	100	16	488	59	547*
	1,101	316	121	1	1,918	97	1,108	120	4,278	534	4,812

*Middlesbrough Cases 319 : Seamen 130 : Other Areas 98.

Cases Classified in Age Groups.

Disease	Under 1 year		1 to 5		5 to 14		14 to 16		16 to 17		17 to 18		18 to 19		Over 19		Totals		Grand Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Syphilis	2	..	1	..	1	..	..	..	..	..	..	1	4	122	22	120	30	153
Gonorrhoea	7	..	242	13	249	13	262
Soft Chancre	16	..	16	..	16
Other Cases	2	..	..	..	..	2	..	..	..	1	2	2	..	93	14	100	16	116
Totals	2	2	..	1	..	1	2	..	..	..	1	2	10	4	473	9	488	59	547

Oldest patient, 74 years. Youngest patient, 4 weeks.

Occupation and State of Cases for the year, 1927.

	MALES		FEMALES	
	Single	Married	Single	Married
Seamen	89	41		
Labourers	78	57		
Railwaymen	9	11		
Commercial Travellers	4	2		
Iron and Steel Workers	54	55		
Tradesmen	20	12		
Motormen	9	7		
Actors	3	4		
Clerks	14	11	1	
Shop Assistants	6	..	5	
Children	2	..	4	
Domestic Servants .. .. .	..	..	10	
Housewives .. .. .	..	..	..	39
	288	200	20	39

Nationality of Seamen treated during the year 1927.

British	88
Lascars	15
Spanish	7
Swedish	3
Norwegian	5
Finnish	2
Japanese	2
Maltese	2
Dutch	1
Latvian	1
German	1
Jamacian	1
Not stated	2
Total	130

Total Attendances of all Persons in 1927 suffering from :

Syphilis		Soft Chancre		Gonorrhoea		Other cases		Total		Total all Cases
Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	
2,251	576	49	....	4,796	190	393	57	7,489	823	8,312

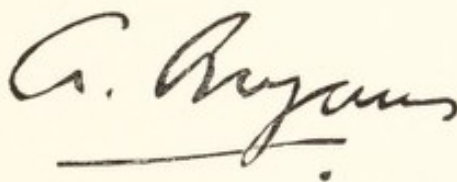
Middlesbrough	..	..	..	..	7,014
North Riding of Yorkshire	..	..	..	..	890
Durham County	..	..	..	..	408
Total Attendance					8,312

Sessions and Attendances during the year 1927.

Sex				Number of Sessions		Total Attendance	Average Attendance per Session	
MALE	..	..	..	Morning	103	1,661	16.4
				Evening	103	3,868	37.5	
FEMALE	..	..	..	Evening	52	823	15.8
IRRIGATIONS ONLY FOR								
MALES				296	1,960	6.5

Totals for the year 1927.

Total Number of Injections Administered				
	(Kharsulphan, Mercury and Bismuth)			2,297
„	„	Irrigations Administered	.. ..	4,796
„	„	Slides examined by Medical Officer	..	745
„	„	Wassermann Reactions	.. ..	274
			Males	Females
Total number of patients Discharged			266	27
„	„	transferred to another Centre	171	16
„	„	uncompleted cases	60	7
Number of Cases at the end of the year 1927,				
under treatment			202	56



Medical Officer Treatment Centre.

VENEREAL DISEASES CLINIC.

Results of Treatment.

Stage	Year	Syphilis		Soft Chancre		Gonorrhoea		Other Cases		Total		
		Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Male	Fem.	Total
Before completion of First Course	1923	13	7	..	..	41	..	..	..	54	7	61
	1924	8	4	..	..	..	..	..	..	8	4	12
	1925	16	8	..	..	31	2	..	..	47	10	57
	1926	9	6	..	..	42	2	..	..	51	8	59
	1927	16	3	1	..	43	2	..	2	60	7	67
	Total	62	28	1	..	157	6	..	2	220	36	256
After one or more Courses	1923	18	2	..	..	..	..	..	..	18	2	20
	1924	7	3	..	..	..	..	..	..	7	3	10
	1925	1	4	..	..	..	..	..	..	1	4	5
	1926	2	2	..	..	..	..	..	..	2	2	4
	1927	..	..	..	..	..	..	..	..	..	..	..
	Total	28	11	..	..	..	..	..	..	28	11	39
After Completion but no final test	1923	12	1	..	..	..	..	..	..	12	1	13
	1924	4	2	..	..	32	3	..	..	36	5	41
	1925	..	..	..	..	..	..	..	..	..	..	..
	1926	..	4	..	..	..	..	..	..	..	4	4
	1927	..	..	..	..	..	..	..	..	..	..	..
	Total	16	7	..	..	32	3	..	..	48	10	58
Transfers	1923	57	10	5	..	78	..	..	..	140	10	150
	1924	35	5	4	..	75	3	..	..	114	8	122
	1925	63	5	1	..	73	..	..	..	137	5	142
	1926	31	12	9	..	93	2	..	..	133	14	147
	1927	61	10	6	..	104	6	..	..	171	16	187
	Total	247	42	25	..	423	11	..	..	695	53	748
Discharged	1923	18	14	14	..	89	6	133	11	254	31	285
	1924	38	26	3	..	95	2	115	26	251	54	305
	1925	18	13	8	..	107	5	132	15	265	33	298
	1926	13	7	5	1	82	4	118	17	218	29	247
	1927	24	7	7	..	116	7	119	13	266	27	293
	Total	111	67	37	1	489	24	617	82	1,254	174	1,428

Report of the Maternity and Child Welfare Medical Officer for the Year 1927

(1) MIDWIVES.

Forty-two Midwives, including four untrained, sent in their notification of intention to practise.

Of 3,105 births notified :—

2,187 were notified by midwives

918 were notified by parents and doctors.

The number of labours conducted by handy women without the presence of a doctor was 40.

That the practice of the handy woman is steadily dropping is seen from the following figures :—

In 1924	..	..	109 cases
1925	..	..	85 „
1926	..	..	73 „
1927	..	..	40 „

Of 2,187 cases notified by midwives, 253 were by the poor-law midwives. From the remaining 1,934 births notified by practising midwives, medical aid was summoned in 518 cases, viz. : in 26 % of cases.

Visits of inspection to midwives numbered 73.

Municipal Maternity Home.

The number of cases delivered was 246. Medical aid was summoned 88 times, viz. : in 31 % of cases.

Number of pupil midwives who passed the Central Midwives Board examination was 7. There are now 7 midwives who were trained in the Home practising in the town.

Municipal Midwife.

The midwife appointed to the North Ormesby area had only 19 cases in the year. She resigned her appointment at the end of the year to get married and the post is not to be filled. A third private midwife has settled down in the area and the number of cases conducted by handy women has dropped. The Municipal midwife had not an idle year. She put in work where she was most required, in the office, at the Centres, in the Children's Wards.

Midwives and Maternity Homes Act, Part II.

The number of Maternity Homes and Hospitals registered is 5. The number exempted under Section II of the Act is 2.

(2) GENERAL ARRANGEMENTS MADE FOR ATTENDING THE HEALTH OF EXPECTANT AND NURSING MOTHERS AND OF CHILDREN UNDER FIVE YEARS.

Health Visitors.

Number of Visits paid :—

To expectant mothers ..	First visits	380	Total visits	868
To infants under 1 ..	First visits	3,292	Total visits	9,524
To children 1 to 5 ..	Total visits	4,446		

Nurses.

A Nurse on the Public Health Staff visits cases of measles and nurses them when necessary. A Nurse from the District Nursing Association is always available for the nursing of an expectant or nursing mother and of a child under 5.

Centres.

The average attendance of children per session :—

East Centre	89
Grove Hill Centre	39
Cannon Centre	134
American Red Cross Centre	70
Settlement Centre	74
North Ormesby Centre	100

Municipal Children's Hospital.

The number of cases admitted was 154. The average duration of stay was 34 days.

The variety of cases admitted and for whom the wards are intended from the preventive point of view is shown below :—

Infants not thriving	..	..	..	..	..	57
Rickets	..	..	..	..	..	26
Domestic reasons (death or sickness of the mother, confinement, etc.)	..	..	..	..	..	23
Gastro-intestinal disturbance	..	..	..	..	..	11
Tubercular contacts	..	..	..	..	..	10
To encourage breast feeding	..	..	..	..	..	8
Pneumonia convalescents	..	..	..	..	..	7
Neglected children	..	..	..	..	..	4
Broncho-pneumonia	..	..	..	..	..	3
Miscellaneous	..	..	..	..	..	5
						154

Ultra-Violet Irradiation.

Light treatment was commenced in February with a Carbon arc lamp which was installed in a ward on the ground floor of the Maternity Home and Children's Hospital. For the first six months one lamp only was used. During the second six months both the Carbon arc and a Mercury lamp have been used. The children in the wards are given light treatment twice a week. Children recommended for light treatment from the Centres are brought up by the mothers twice weekly. The ward Sister and a Health Visitor are always in attendance at the light sessions. No exposures were given during August.

During the first six months 75 patients were treated. From 6 to 12 children are treated simultaneously. The majority of the children improved under treatment. A common experience was to find an initial loss of weight due to increased alertness and activity on the part of the child. This initial loss was succeeded by a steady gain. There were some spectacular successes in mal-thriving children one of which can be quoted. A boy was admitted to the wards at 30 weeks old weighing 9lbs. 14ozs. He thrived slowly being only 14 lbs. 1 oz. at 15 months, when he was given his first light exposure; after 22 exposures his weight was 22 lbs. 8 ozs. and he was walking.

Ante-Natal Work.

Each of the 6 Centres has a monthly ante-natal session.

	Average Attendances per Session.			
East Centre	11.6
Grove Hill Centre	3.2
Cannon Centre	29.7
American Red Cross Centre	20.6
Settlement Centre	19.3
North Ormesby Centre	20.7

Maternal Mortality.

Out of 3,140 registered births 12 maternal deaths were certified.

The certified causes of death were as follows :—

Puerperal sepsis	..	..	..	3
Septicaemia following abortion	..	..	..	1
Pelvic cellulitis	..	..	..	1
Lobar pneumonia	..	..	..	1
Eclampsia	..	..	..	2
Nephritis and Cerebral toxaemia	..	..	..	1
Placenta praevia	..	..	..	1
Endocarditis	..	..	..	1
Heart failure	..	..	..	1

Of the 3 cases of *puerperal sepsis* one died in Hospital and the other two in their own homes.

The first case was an impacted breech in an unmarried primipara. She was brought in from the country by her doctor and her midwife, after vain attempts at delivery outside. A Caesarean Section was contra indicated.

The second case was delivered by forceps by her own doctor on the district after an ante-partum haemorrhage. No midwife was in attendance. A district nurse was sent when the patient became septic.

The third case was delivered by a midwife who sent for a doctor on the 6th day. Staphylo- and Streptococci were found in the vaginal pus. The midwife was taken from the case and a district nurse sent. The midwife had no other case of pyrexia either before or after this case.

The case of *septicaemia following abortion* was admitted to Hospital after a self induced abortion.

The case of *pelvic cellulitis* was delivered by forceps by her own doctor on the district. The patient was nursed by a handy woman who was said to have made an internal examination "once or twice."

The case of *lobar pneumonia* was delivered and died in Hospital.

Both cases of *eclampsia* were delivered and died in Hospital. One had ante-natal supervision. No Albumen was present at the last test 3 weeks before delivery.

The case of *nephritis* had ante-natal supervision from her own doctor till she was admitted to Hospital.

The case of *placenta praevia* was delivered by her own doctor with forceps, on the district after an ante-partum haemorrhage. After the doctor left a post-partum haemorrhage occurred. The woman was dead before he could be re-called. No midwife was in attendance.

The case of *endocarditis* was delivered and died in Hospital.

No information could be obtained in respect of the *acute heart failure*. The patient was delivered in her own home. No midwife was in attendance.

Infant Mortality.

The figure was 87 per 1,000.

Still Births.

Of 3,105 notified births, 117 were still births, *i.e.*, 3.7%.

The death in at least 40 of the still-births was intra-partum.

An attempt at a classification of ascertainable causes is given below :—

1. Mechanical causes (a fall, prolonged coughing, vomiting, etc.)	..	16
2. Syphilis	.. .. .	4
3. Other toxaemias (eclampsia, pneumonia, influenza, etc.)	..	15
4. Ante-partum haemorrhage	.. .. .	18
5. Forceps deliveries	.. .. .	13
6. Delay in the birth of the head in breech presentations	.. ..	8
7. Prolapsed cord	.. .. .	5
8. Big foetus in normal labour (11lbs. and 12lbs.)	.. ..	2
9. Developmental (anencephaly, etc.)	.. .. .	7
10. Want of help at birth	.. .. .	8

The findings of 17 post-mortems done were as follows :—

1. Meningeal haemorrhage, 2 from forceps and 2 in midwives' deliveries	4
2. Fibroid, fatty placenta : Wasserman from placental blood, negative	1
3. Macerated foetus, nothing abnormal found	8
4. Signs of asphyxia livida (one had a patent urachus)	4

Neo-Natal Deaths.

Number of babies who died under one year	274
Number of babies who died under one month	108

The neo-natal deaths were thus 39.4% of the total infantile mortality.

Unmarried Mothers and Illegitimate Children.

The Holy Cross Refuge receives a grant from the Municipality. The Refuge receives unmarried mothers with their babies from the Municipal Maternity Home. The mothers living at the Refuge attend the Cannon Centre with their babies.

Supply of Food and Milk.

Amount of Dried Milk given	868 lb. packets.
Amount of Cocoa and Milk given	619 lb. tins.
	1,487 lbs.

(3)

INFECTIOUS DISEASES.

Puerperal Fever.

Of 14 cases notified 3 died.

Puerperal Pyrexia.

Of 26 notified 2 died, certified respectively as pelvic cellulitis and eclampsia.

Ophthalmia Neonatorum.

Of 21 notified 19 had a complete cure and a corneal opacity was left in the other 2 cases.

Cases			Vision Unimpaired	Vision Impaired	Total Blindness	Deaths
Notified	Treated					
	At home	In hospit'l				
21	17	4	19	2	Nil	Nil

Measles.

Out of 1,727 cases under 5 years of age there were 39 deaths.

Tuberculosis.

Notifications of Tuberculosis under 5 years :—

Pulmonary	(male)	..	..	13
do.	(female)	..	..	15
Other forms	(male)	..	..	24
do.	(female)	..	..	17
				—
				69

Deaths from Tuberculosis under 5 years :—

Pulmonary	..	..	..	13
Other forms	..	..	..	18
				—
				31

Pemphigus Neonatorum.

Medical assistance was called in 10 cases for skin eruption. One of the 10 babies who had "watery blisters" died when a month old. The death was certified as due to "Convulsions and septic infection of skin."

Grace B. Fisher Dundas.

Medical Officer Maternity and
Child Welfare.

STATISTICAL TABLES.

**TABLE I.—Vital Statistics of Whole District during 1927
and previous years.**

YEAR	Population estimated to Middle of each Year.	BIRTHS			TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT			
		Uncorrected Number	Nett		Number	Rate	Of Non-residents registered in the District	Of Residents not registered in the District	Under 1 Year of Age		At all Ages	
			Number	Rate					Number	Rate per 1,000 Nett Births	Number	Rate
1	2	3	4	5	6	7	8	9	10	11	12	13
1916	.. For Deaths: 115,548 For Births: 125,718	3,536	3,535	28.12	2,154	18.64	90	25	430	121	2,089	18.07
1917	.. For Deaths: 119,251 For Births: 132,931	3,059	3,062	23.03	2,366	19.84	92	34	465	151	2,308	19.35
1918	.. For Deaths: 115,752 For Births: 129,696	3,331	3,327	25.64	2,741	23.67	150	50	485	145	2,641	22.81
1919	.. For Deaths: 127,142 For Births: 132,444	3,534	3,531	26.66	2,437	19.16	132	34	493	139	2,339	18.39
1920	.. 132,208	4,434	4,431	33.51	2,109	15.95	120	37	602	135	2,026	15.32
1921	.. 133,400	4,240	4,218	31.62	1,967	14.74	106	32	501	118	1,893	14.41
1922	.. 134,800	3,823	3,774	27.99	2,057	15.26	121	24	421	111	1,960	14.50
1923	.. 135,400	3,726	3,728	27.53	1,876	13.85	139	28	321	86	1,765	13.03
1924	.. 136,300	3,607	3,589	26.33	2,372	17.42	136	47	484	135	2,283	16.75
1925	.. 136,200	3,503	3,501	25.70	2,123	15.58	167	28	342	97	1,984	15.56
1926	.. 133,600	3,401	3,387	25.35	1,915	14.33	185	29	337	99	1,759	13.16
1927	.. 133,600	3,149	3,140	23.50	1,933	14.46	200	43	274	87	1,776	13.29

TABLE II.—INFANTILE MORTALITY, 1927. Nett Deaths from stated Causes

CAUSE OF DEATH	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	4 weeks and under 3 months	3-6 months	6-9 months
Measles .. .. .	..	..	..	..	..	1	..	5
Scarlet Fever .. ..	..	..	..	..	..	..	..	1
Whooping-Cough .. ..	..	..	..	..	..	..	4	..
Erysipelas .. .. .	..	..	..	..	..	1	..	..
Tuberculous Meningitis ..	..	..	..	..	..	..	..	1
Other Tuberculous Diseases .. .. .	..	..	..	..	..	1	1	1
Meningitis (not Tuberculous) ..	..	..	..	..	..	1	..	2
Convulsions	4	..	..	..	4	1	3	..
Bronchitis .. .. .	..	..	..	..	..	7	3	7
Pneumonia (all forms) ..	..	..	..	1	1	6	9	16
Diarrhoea .. .. .	..	..	..	..	..	1	4	1
Enteritis .. .. .	..	1	..	2	3	2	9	3
Gastritis .. .. .	..	..	..	..	..	2	1	..
Syphilis .. .. .	..	..	..	..	..	2	..	..
Rickets .. .. .	..	..	..	..	..	..	1	..
Injury at Birth	3	..	..	..	3	..	..	..
Atelectasis	3	..	..	..	3	..	..	..
Congenital Malformations	8	2	2	2	14	3	..	..
Premature Birth	55	..	4	1	60	2	..	..
Atrophy, Debility and Marasmus	7	2	2	..	11	10	5	1
Other Causes	4	3	..	1	8	3	4	2
Pemphigus .. .. .	..	..	1	..	1	..	..	..
Influenza .. .. .	..	..	..	..	..	2	..	..
Total	84	8	9	7	108	45	44	40
NETT BIRTHS IN THE YEAR :—					NETT DEATHS IN THE YEAR OF :—			
Legitimate .. .. .	..	2,995			Legitimate Infants ..	..	255	
Illegitimate .. .. .	..	145			Illegitimate Infants ..	..	19	
Total .. .. .	..	3,140			Total .. .. .	..	274	

at various Ages under One Year.

9-12 months	Total Deaths under 1 year	Ayresome	Acklam	Cannon	Cleveland	Exchange	Grove Hill	Linthorpe	Newport	Ormesby	St. Hildas	Vulcan	TOTAL
4	10	..	..	1	1	..	1	..	2	..	3	2	10
..	1	..	..	1	..	..	..	..	..	..	..	..	1
..	4	..	..	..	..	1	1	..	..	2	..	..	4
1	2	..	..	1	..	..	..	..	1	..	..	..	2
..	1	..	..	..	..	..	..	1	..	..	..	..	1
..	3	..	..	..	..	..	..	..	1	..	2	..	3
2	5	..	..	..	..	..	..	..	4	..	1	..	5
1	9	..	..	..	..	..	1	1	2	1	2	2	9
2	19	..	..	3	2	..	1	1	2	3	6	1	19
17	49	..	1	10	4	2	2	2	8	3	15	2	49
..	6	..	..	4	..	..	..	..	..	2	..	..	6
5	22	1	..	4	3	1	..	1	4	1	7	..	22
..	3	..	..	1	..	..	..	..	1	..	..	1	3
..	2	..	..	..	..	..	1	..	1	..	..	..	2
..	1	..	..	..	..	1	..	..	..	..	..	..	1
..	3	..	..	1	..	..	..	..	1	..	..	1	3
..	3	..	..	1	..	..	..	..	2	..	..	..	3
..	17	3	..	1	2	1	3	..	3	2	2	..	17
..	62	4	..	6	5	3	5	2	13	6	9	9	62
1	28	3	1	5	3	..	1	3	3	4	3	2	28
4	21	..	4	1	1	..	5	1	4	..	4	1	21
..	1	..	..	..	..	..	..	..	..	..	..	1	1
..	2	..	..	..	..	..	..	..	1	1	..	..	2
37	274	11	6	40	21	9	21	12	53	25	54	22	274
Birth Rate ..	13.19	15.11	30.98	22.25	16.64	24.70	12.04	31.67	20.49	32.60	20.64	23.50	
Inf. Mort. Rate	56	38	107	82	61	64	77	129	95	128	88	87	

TABLE III.—Nett Deaths

CAUSE OF DEATH			AGES AT DEATH															Deaths in Public Institutions
			At all ages	under one year	1 and under 2 yrs.	2 and under 3 yrs.	3 and under 4 yrs.	4 and under 5 yrs.	5 and under 10 yrs.	10 and under 15 yrs.	15 and under 20 yrs.	20 and under 25 yrs.	25 and under 35 yrs.	35 and under 45 yrs.	45 and under 55 yrs.	55 and under 65 yrs.	65 yrs. and over	
All Causes	Certified	..	1769	271	106	54	22	15	36	31	47	49	91	143	184	241	479	
	Uncertified	..	7	3	..	..	..	..	..	..	1	..	..	1	..	..	2	
Enteric Fever	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	39	10	15	8	3	3	..	..	..	..	..	..	..	..	..	2
Scarlet Fever	..	..	2	1	..	..	1	..	..	..	..	..	..	..	..	..	..	2
Whooping Cough	..	..	4	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup	..	..	8	..	4	1	..	..	3	..	..	..	..	..	..	..	..	7
Influenza	..	..	66	3	..	..	..	1	1	2	3	1	3	12	14	10	16	6
Erysipelas	..	..	8	2	..	..	..	..	..	..	..	..	..	1	1	1	3	4
Pulmonary Tuberculosis	..	..	154	1	4	2	4	2	3	11	15	18	30	31	24	6	3	48
Tuberculous Meningitis	..	..	12	1	4	..	1	3	1	1	..	..	1	..	..	..	..	5
Other Tuberculous Diseases	..	..	28	2	1	3	3	..	5	1	2	1	3	2	3	2	..	13
Cancer, Malignant Disease	..	..	147	..	..	..	..	..	..	..	..	2	3	8	24	45	65	81
Rheumatic Fever	..	..	17	..	..	..	..	..	1	..	2	..	1	1	2	2	8	3
Meningitis	..	..	16	5	2	..	..	..	2	1	4	2	..	..	..	..	..	3
Organic Heart Disease	..	..	186	..	..	..	..	..	..	1	2	3	4	13	18	37	108	106
Bronchitis	..	..	126	19	3	3	1	..	1	1	..	1	1	1	12	24	59	21
Pneumonia	..	..	123	7	9	4	2	1	4	1	4	4	7	16	20	23	21	31
„ Broncho	..	..	154	42	46	16	4	3	2	2	1	..	1	4	4	9	20	29
Other Respiratory Diseases	..	..	21	1	2	..	..	..	..	..	..	..	3	3	2	4	6	8
Diarrhoea and Enteritis	..	..	48	28	7	7	..	..	1	..	..	..	..	..	2	3	..	10
Appendicitis and Typhlitis	..	..	13	..	..	..	..	..	1	3	1	1	2	1	1	2	1	16
Cirrhosis of Liver	..	..	6	..	..	..	..	1	..	..	..	..	..	1	2	1	1	3
Alcoholism	..	..	1	..	..	..	..	..	..	..	..	..	..	1	2	1	1	..
Nephritis and Brights Disease	..	..	36	2	..	..	..	..	..	..	..	..	..	..	..	..	1	..
Puerperal Fever	..	..	3	..	..	..	..	..	..	..	..	1	1	1	7	14	6	15
Other Accidents and Diseases of Pregnancy	..	..	9	..	..	..	..	..	..	..	1	2	3	3	..	..	..	3
Congenital Debility and Malformation, including Premature Birth	..	..	103	103	..	..	..	..	..	..	..	..	..	..	..	..	..	22
Violent Deaths	..	..	65	2	2	3	1	1	5	3	4	3	9	9	6	7	10	50
Suicide	..	..	6	..	..	..	..	..	..	..	..	1	..	1	..	3	1	2
Other Defined Diseases	..	..	360	39	7	4	2	..	5	2	9	8	18	26	34	54	152	173
Diseases ill-defined or unknown	..	..	4	..	..	..	..	..	..	..	..	..	..	2	..	1	1	1
Syphilis	..	..	6	2	..	2	..	..	1	..	..	..	..	..	..	1	..	5
Cerebrospinal Fever	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
Acute Anterior Poliomyelitis	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Manslaughter	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Encephalitis Lethargica	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
Total	..	..	1776	274	106	54	22	15	36	31	48	49	91	144	184	241	481	676

during the year 1927.

NUMBER OF DEATHS AND DEATH RATE IN EACH WARD IN THE BOROUGH.

Ayresome	Acklam	Cannon	Cleveland	Exchange	Grove Hill	Linthorpe	Newport	Ormesby	St. Hildas	Vulcan	Totals
..	..	..	..	..	..	..	..	1	..	..	1
..
2	1	6	1	1	1	..	12	2	8	5	39
..	..	1	1	..	..	..	..	..	..	..	2
..	..	..	..	1	1	..	..	2	..	..	4
2	..	1	1	1	1	..	..	..	1	1	8
9	3	4	7	5	5	5	8	6	9	5	66
..	..	2	..	..	..	3	1	1	1	..	8
11	10	13	8	12	9	4	38	20	15	14	154
1	1	1	..	..	1	1	1	..	5	1	12
..	3	3	2	4	3	1	4	4	3	1	28
15	14	13	16	8	13	11	14	13	21	9	147
..	4	..	3	..	..	1	2	2	..	5	17
1	..	..	..	2	2	2	4	3	1	1	16
17	14	17	9	10	17	17	19	14	26	26	186
11	4	15	13	10	8	7	13	14	21	10	126
9	12	17	8	7	8	4	16	9	23	10	123
5	5	15	12	10	11	6	24	9	45	12	154
1	1	1	3	2	2	2	3	1	3	2	21
2	..	9	4	3	2	3	6	4	14	1	48
3	3	..	1	1	2	1	1	1	..	..	13
..	1	..	1	1	..	1	..	..	1	1	6
..	..	..	..	..	..	..	..	..	..	1	1
4	2	1	4	6	3	1	4	1	7	3	36
..	1	..	..	1	1	..	..	..	..	..	3
..	2	..	..	1	1	..	..	3	1	1	9
10	1	12	7	4	9	1	23	11	13	12	103
7	4	3	3	8	4	5	7	6	9	9	65
..	..	1	..	1	..	1	1	1	1	..	6
27	34	34	33	24	34	32	41	28	43	30	360
..	..	..	..	..	1	..	1	1	1	..	4
..	..	1	..	..	1	..	..	1	2	1	6
..	..	..	..	..	..	..	..	..	1	..	1
..	..	..	..	..	..	..	..	..	1	..	1
..	..	..	1	..	..	..	..	..	..	..	1
..	..	..	..	..	..	..	..	1	..	..	1
137	120	170	138	123	140	109	243	159	276	161	1776
9.41	11.47	14.04	12.04	13.93	10.48	9.08	18.82	12.34	21.42	13.24	13.29

TABLE IV.—Notifications of Infectious Disease received during the Year ending December 31st, 1927.

NOTIFIABLE DISEASE	NUMBER OF CASES NOTIFIED										Total Cases Notified in each Ward of the Borough									Cases Removed	
	At all ages	At Ages							Ayresome	Acklam	Cannon	Cleveland	Exchange	Grove Hill	Linthorpe	Newport	Ormesby	St. Hildas	Vulcan	West Lane Hospital	Hemlington Hospital
		Under 1 year	1 and under 5 years	5 and under 15 years	15 and under 25 years	25 and under 45 years	45 and under 65 years	65 and over													
Diphtheria ..	73	3	38	21	4	6	1	..	12	1	5	9	2	6	6	14	3	5	10	63	..
Erysipelas ..	96	2	3	7	6	28	41	9	9	11	7	9	12	5	6	15	7	7	8	..	..
Scarlet Fever ..	168	8	57	80	17	5	1	..	28	17	16	14	9	21	14	15	11	13	10	156	..
Small-pox ..	110	3	8	49	22	15	12	1	3	4	12	16	1	3	5	18	39	5	4	..	110
Pneumonia ..	280	13	42	51	41	63	47	23	51	13	32	30	11	14	22	40	8	38	21	..	..
Chickenpox ..	811	58	325	419	8	..	..	1	93	37	53	48	63	124	69	127	54	71	72	..	..
Measles ..	2658	204	1523	915	15	1	..	..	237	184	315	194	134	204	77	468	212	391	242	..	..
Pulmonary Tuberculosis:																					
Males ..	193	1	12	45	31	64	33	7	22	13	19	11	6	9	14	30	14	37	18	87	..
Females ..	166	..	15	43	41	54	13	..	10	8	14	10	15	13	7	28	23	24	14	77	..
Other forms of Tuberculosis:																					
Males ..	61	..	24	22	6	4	4	1	3	4	6	5	3	5	1	11	7	13	3	3	..
Females ..	52	4	13	24	5	4	2	..	4	2	8	4	3	4	4	11	2	5	5	2	..
Enteric Fever ..	4	..	..	1	1	1	1	..	2	1	..	..	..	..	..	1	..	..	..	2	..
Malaria ..	2	..	..	..	..	2	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..
Puerperal Fever ..	14	..	..	..	4	10	..	..	3	..	1	..	1	3	5	..	..	1	..	..	..
Puerperal Pyrexia ..	26	..	..	..	13	13	..	..	9	..	1	4	2	2	3	2	..	3	..	..	..
Ophthalmia Neonatorum ..	21	21	..	..	..	..	..	..	5	1	1	4	1	1	4	1	..	..	3	..	..
Polio-myelitis ..	2	..	1	..	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..
Encephalitis Lethargica ..	3	..	1	2	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	..	..
Cerebrospinal Fever ..	1	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Influenzal Pneumonia ..	94	7	12	15	7	22	23	8	9	6	16	16	5	8	9	8	8	6	3	..	..
Totals ..	4835	324	2074	1694	221	293	179	50	502	302	507	376	268	422	246	790	389	620	413	390	110

NOTIFICATION OF BIRTHS ACT, 1907.

TABLE V.—Summary of Births notified to the Medical Officer of Health during the year 1927.

WARDS	January		February		March		April		May		June		July		August		Sept'ber		October		Nov'ber		Dec'ber		Total including Still births				Stillbirths		Total No. of Births notified excluding Stillbirths
	M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		M.		
	F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		F.		
Ayresome ..	5	5	10	7	6	6	14	10	14	5	9	3	5	12	5	5	11	11	9	6	8	9	9	15	105	94	199	5	2	192	
Acklam ..	7	8	12	11	6	7	8	5	4	6	3	5	8	6	7	7	11	4	3	5	6	9	11	6	86	79	165	4	3	158	
Cannon ..	23	11	22	14	23	15	15	15	16	18	15	20	19	12	10	14	13	11	22	19	16	16	13	204	178	382	3	4	375		
Cleveland ..	14	11	14	7	14	10	13	17	17	15	12	6	13	9	11	12	11	12	8	7	6	11	10	145	122	267	4	8	255		
Exchange ..	6	4	6	11	9	6	7	7	8	3	5	5	11	5	7	5	7	7	8	5	6	4	5	85	67	152	2	3	147		
Grove Hill ..	8	19	13	14	16	8	6	18	22	13	15	13	20	11	17	9	16	8	18	10	18	16	17	15	186	154	340	6	4	330	
Linthorpe ..	4	12	4	5	5	11	11	4	5	4	8	6	5	8	7	5	5	6	11	6	9	8	6	8	80	83	163	3	3	157	
Newport ..	22	22	22	22	22	26	20	10	9	24	19	18	21	25	13	14	21	10	10	12	9	16	23	14	211	213	424	8	7	409	
Ormesby ..	11	9	13	8	15	13	8	12	11	11	12	12	12	12	17	7	13	8	12	11	12	6	17	12	153	121	274	4	6	264	
St. Hildas ..	22	15	19	16	25	25	17	24	21	18	21	19	26	11	13	12	18	14	18	18	12	15	22	19	234	206	440	7	13	420	
Vulcan ..	13	6	10	8	12	13	11	9	10	14	7	10	10	16	13	11	15	11	8	13	4	14	11	127	136	263	7	5	251		
Non-Residents ..	1	1	1	2	..	..	4	2	1	2	4	..	1	2	2	..	..	1	..	1	2	2	3	5	18	18	36	3	3	30
TOTALS	135	123	146	125	153	140	134	133	138	133	130	117	151	129	122	101	141	103	127	113	109	121	148	133	1634	1471	3105	56	61	2988	
Births notified by :																													..		
Doctors ..	72	208	68	70	71	60	78	50	58	62	60	60	917																		
Reg. Midwives ..	186	63	225	197	200	187	202	173	185	178	170	221	2187																		
Other Women, etc.	1	1
TOTALS ..	258	271	293	267	271	247	280	223	244	240	230	281	3105																	..	

TABLE VI.—Birth-rate, Death-rate, and Analysis of Mortality during the year 1927.

(Provisional figures. The rates have been calculated on a population estimated to the middle of 1927. The mortality rates refer to the whole population as regards England and Wales, but only to civilians as regards London and the groups of towns. As the registration of stillbirths did not come into operation until July, 1927, no stillbirths are included.)

	BIRTH- RATE PER 1,000 TOTAL POPULA- TION	ANNUAL DEATH-RATE PER 1,000 POPULATION.								RATE PER 1,000 BIRTHS.		PERCENTAGE OF TOTAL DEATHS.				
		All Causes	Enteric Fever	Small-pox	Measles	Scarlet Fever	Whooping Cough	Diphtheria	Influenza	Violence	Diarrhoea and Enteritis (under Two years)	Total Deaths under One year	Causes of Death Registered by Medical Practitioners	Inquest Cases	Certified by Coroner after P.M. No Inquest.	Uncertified Causes of Death
England and Wales	16.7	12.3	0.01	0.00	0.09	0.01	0.09	0.07	0.57	0.51	6.3	6.9	91.7	6.6	0.7%	1.0
107 County Boroughs and Great Towns, including London ..	17.1	12.2	0.01	0.00	0.12	0.01	0.10	0.08	0.49	0.46	8.3	71	91.9	6.6	0.9%	0.6
155 Smaller Towns (1921 Adjusted Populations 20,000-50,000) ..	16.4	11.3	0.01	0.00	0.07	0.01	0.08	0.05	0.58	0.41	5.0	68	92.7	5.8	0.3%	1.2
London	16.1	11.9	0.01	0.00	0.04	0.01	0.12	0.09	0.39	0.51	7.5	59	90.3	7.9	1.8%	0.0
Middlesbrough	23.50	14.20	0.01	0.00	0.29	0.01	0.03	0.06	0.49	0.48	11.1	87	89.7	9.7	0.5%	0.4

* The Coroners (Amendment) Act, 1926, which came into operation on the 1st May, 1927, provided for the registration of deaths on a certificate of the Coroner after P.M. without inquest. These percentages relate therefore to 8 months of the year only.

ABSTRACT OF MEDICAL OFFICER OF HEALTH REPORTS FROM 1898-1927.

