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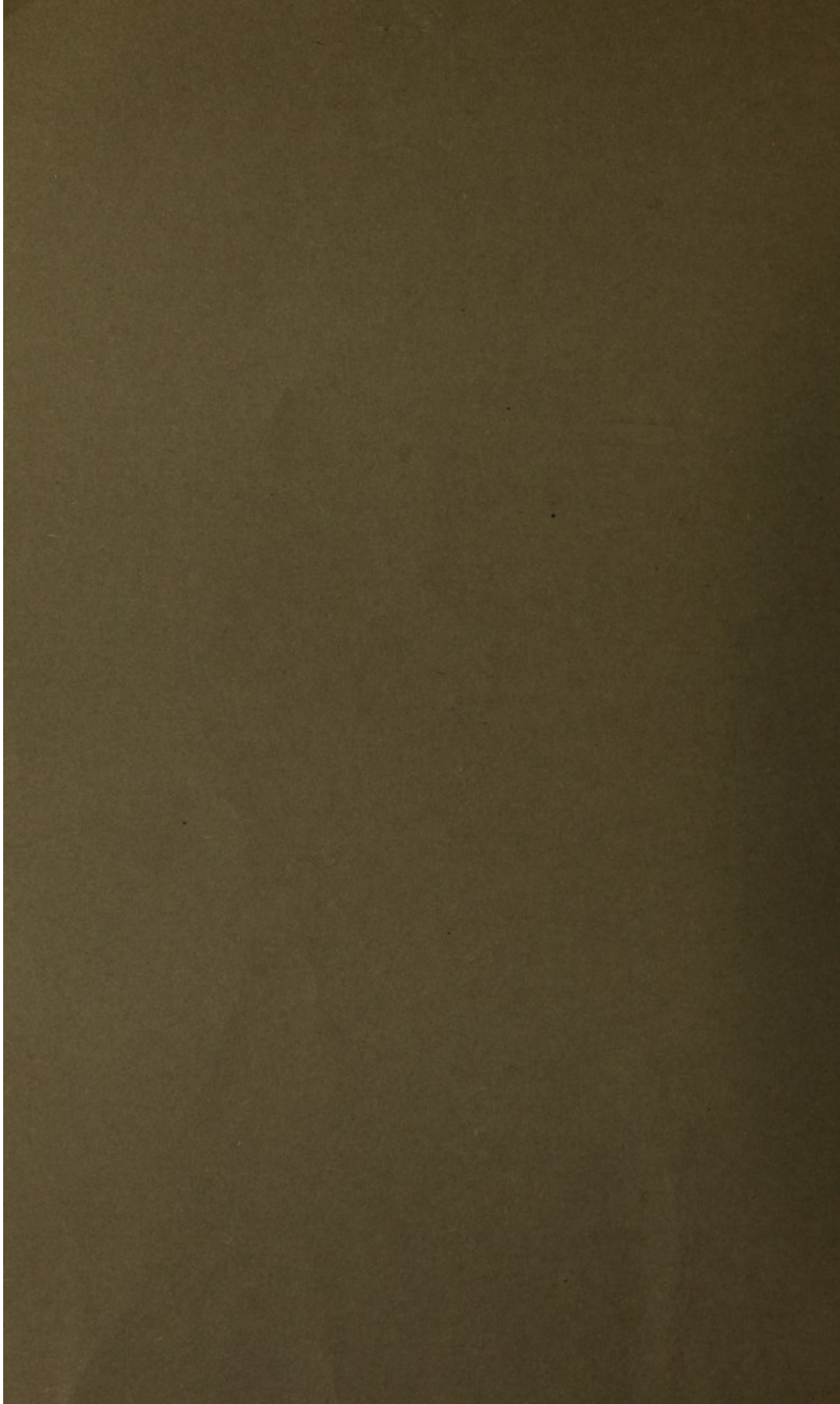


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Borough of Dartford

REPORT
ON CERTAIN MATTERS
CONCERNING
PUBLIC HEALTH
FOR THE YEARS
1964 AND 1965



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Mr. Mayor, Ladies and Gentlemen,

Your obedient servant,

John H. Hudson
Medical Officer of Health.

BOROUGH OF DARTFORD

Report for the years 1964 and 1965 on
certain matters concerning Public Health

March, 1968

To THE MAYOR, ALDERMEN AND COUNCILLORS
OF THE BOROUGH OF DARTFORD

YOUR WORSHIP, LADIES AND GENTLEMEN,

As soon as practicable after the end of each year it is the duty of a medical officer of health to make to the local authority a report for that year on the sanitary circumstances, sanitary administration, vital statistics and on any other matters concerning their district on which he considers it desirable to report. The report that follows is written in compliance with that duty.

The report covers two years which has advantages for an authority of this size. I regret that the completion of the report is so late but being a small department some delay in the preparation is inevitable if we are to include collect and analyse what information is available and spread the work amongst our routine commitments.

The practice of compiling our own tables means that there is some duplication of the information provided by the tables containing the statistics of the Registrar General and I apologise for this duplication. Now that the Registrar General is supplying us with more detailed statistics than hitherto there may be less duplication in future.

The fact remains however that unless we do our own compilation of statistics we cannot inform ourselves on details such as quarterly death rates or statistics for the town excluding the long-stay health service accommodation. Whether detailed analysis of local information justifies the time involved is uncertain, we can however hope that it will provide a record for future reference.

The information in this report contains much material provided by officers of other departments and other authorities or organisations. The facts on many environmental matters are the product of work by the Council's Public Health Inspectors. The presentation of the statistical material is a product of the patience of the clerical assistant concerned. I thank these colleagues for their co-operation.

On behalf of my colleagues in the public health office and myself I wish to thank the Chairman and Members of the Public Health Committee for their support and interest during the period under review.

I am,

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Medical Officer of Health.

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Yours obedient servant,

John H. Worswick
Medical Officer of Health

DARTFORD BOROUGH

1964 - 1965

S U M M A R Y

The population increase was small and largely due to natural increase, i.e. excess of births over deaths. The town rate of natural increase was the highest for several years.

By 1965 the birth rate climbed to a new height for recent years.

In each of the five years 1961-65 the numbers of deaths was similar.

If the deaths from coronary disease showed a trend it was one of increase. On tabulation by quarters season did not show a substantial effect on these deaths. Our death rate seemed lower than that of England and Wales.

No trend of increase is seen here in the death rate from lung cancer but this is probably obscured by chance. The national figures continued to increase. Our death rate appeared to be less than that of London.

There was one maternal death in 1964, two cot deaths in 1964 and one cot death in 1965.

Our death rate from motor vehicle accidents over a period of eight years was similar to that of England and Wales. For accidents in the home our death rate over five years was less than that for England and Wales.

Over five years the years of life lost by residents of Dartford from motor vehicle accidents are over twice the loss from accidents in the home.

The suicide rate for 12 years here was as high or higher than that of neighbouring areas.

Sickness from influenza was not a feature of the winter of 1964 or 1965.

Vaccination figures for infants were good. There was no revaccination of school children against smallpox.

The problem of dust nuisance from cement works is reviewed.

The features of local public health administration are discussed.

The number of houses built was similar to that of former years. In 1964-65 £14000 was paid in discretionary improvement grants. Only eight houses were demolished.

In the drinking water here fluorine remained at only 15% of the value required to prevent tooth decay.

By the end of 1965, 6159 of the Council's 14,465 dwellings were in smoke control areas.

Measurements of radioactivity provided by laboratories elsewhere are summarised. Registrations for use of radioactive substances are listed.

Registrations and inspections by the Council's Public Health Inspectors under the Offices, Shops and Railway Premises Act were begun.

COMMENTARY

POPULATION
Table I

By 1965 such annual increase as occurred appeared to depend on the natural increase, i.e. excess of births over deaths rather than excess of those entering over those leaving the district. The town rate of natural increase however resumed an upward trend so that at 10.1 the 1965 rate was the largest of the last decade.

The rates per 1000 population of natural increase for this and neighbouring districts were:

	1964	1965
Dartford R.D.	10.9	10.3
Dartford Town	9.4	10.1
Northfleet U.D.	12.5	12.6
Swanscombe U.D.	11.1	8.8
England & Wales	7.0	6.9
Kent A.C.	6.4	6.2

BIRTHS
Table II

The trend has been:

	1959	1960	1961	1962	1963	1964	1965
Births Dartford M.B.	700	735	824	789	780	865	898
Rate adjusted by C.F.	15.6	15.9	17.6	16.6	15.4	17.2	17.7
Rate Eng. & Wales	16.5	17.2	17.4	17.4	18.2	18.5	18.1

The lower comparability factor from 1963 onwards was a downward influence on the adjusted birth rate.

The percentage of births at home has been:

	Births	Nursing Home or at hospital	Elsewhere i.e. own home	% Home
1958	688	538	150	22%
1959	700	541	159	23%
1960	735	552	183	25%
1961	824	610	214	26%
1962	789	588	201	25%
1963	780	584	196	25%
1964	(865)879*	663	216	25%
1965	(898)920*	706	214	23%

*later figures by R.G.

In the Rural District for several years the percentage at home has been around 35%. England and Wales 30%.

DEATHS
Table II

These have been:

	1959	1960	1961	1962	1963	1964	1965
Deaths Dartford M.B. (RG)	603	525	625	631	605	588	631
Dartford Town	436	400	452	428	431	449	443
Adjusted M.B. rate (CF)	11.6	9.9	11.8	10.6	11.0	11.7	11.4
England & Wales	11.6	11.5	12.0	11.9	12.2	11.3	11.5

The Borough death rates 1962-65 partly reflect movements in the comparability factor.

Age, season
and place
Table VI.

The distribution of deaths by quarters in 1964 and 1965 followed the usual pattern which gives the highest death rate to the first quarter. 72% of non-institutional deaths continued to be the proportion occurring in hospital compared with 48% in England and Wales and 63% in the Rural District.

The proportion of deaths at all ages occurring at ages of 75 or over continues to be around 43% i.e. the same as for England and Wales. If postponement of death is an objective of public health, then our 43% should be 100%.

MAIN CAUSE
Tables
VII and
VIII.

As usual the probability that any death would be due to circulatory diseases was about 1 in 3, due to cancer 1 in 5, due to lung disease 1 in 7 and due to defective arteries of the brain (vasc.les. nerv.system) 1 in 8. Two-thirds to three-quarters of deaths due to cancer occurred before the age of 75 years.

The feature of note about our numbers, seasons, places, ages and causes of death is that it takes something outstanding to make a short term change in the pattern. Changes are occurring but in settled times the change from year to year is barely perceptible.

CIRCULATORY
DISEASE
Table VIII.

Town deaths from this main cause from 1962 to 1965 were: 158, 152, 169, 152. The percentages relating to deaths from all causes were 37% 35% 38% 34%. The percentages for England and Wales were: 38% 37% 37% 38%.

In 1962, 1963, 1964 and 1965 Town deaths from this cause occurring at 75 years of age or over were: 58% 51% 46% and 42% of those occurring at all ages.

Coronary
disease.
Table IX.
Trend.

The years 1963-65 showed Town deaths to be substantially increased on the numbers for previous years. Perhaps this reflects the continual increase being shown by England and Wales and London. Our death rate from coronary disease, however, seems lower than that of England and Wales and that of London.

As percentages of deaths from all causes Borough (R.G.) deaths from coronary disease in the years 1962, 1963, 1964 and 1965 were 15% 19% 22% and 20% respectively. The percentages for the Town were 16% 23% 24% and 22% : for the long-stay patients of Bexley Hospital the percentages were 10% 11% 16% and 14%. The percentages for England and Wales were 18.0% 18.5% 19.6% and 20.4%.

Season.
Table X.

The first quarter of 1962 was an average winter, that of 1963 was a severe winter, the first quarters of 1964 and 1965 were mild. With this in view it is of interest to tabulate our coronary disease deaths by quarters compiled locally. This is done in Table X.

The figures for the first quarter of 1963 show but little reflection of the severity of that winter.

**VASCULAR
LESIONS OF
NERVOUS
SYSTEM**

The Town deaths from this cause each year 1960-65 were 34, 47, 43, 59, 55, 47. In 1964 and 1965 the percentages of these deaths in all deaths here were 12% and 11%. For England and Wales 14% and 14%.

**CANCER
Table VIII.**

In the years 1960-65 Town deaths from this cause have been 83, 75, 68, 76, 87 and 81. At the South Metropolitan 1960-62 cancer annual registration rate about 140 cases could be expected annually in this district. ∴ about 60 Town cases must seemingly be successfully cured annually.

Town cancer deaths in 1964 and 1965 comprised 19% and 18% respectively of all deaths. The percentages for England and Wales were 19.5% and 19.4%. The crude Town death rates per 1000 population were 1.95 and 1.81: for England and Wales were 2.21 and 2.23.

**Cancer of
the lung
Table IX**

For the years 1958-65 deaths from this cause were as shown in the Table. Our death rate appears to be less than that of London.

In 1964 and 1965 6.4% and 4.8% of all Town deaths were from this cause. The percentages for England and Wales were 4.7% and 4.8%. More than half the deaths occurred at age 65 or over. Tobacco shortens pensions as well as collecting taxes.

The England and Wales death rate shows a steady yearly increase so that the rate of 1965 is 125% that of 1958. At the South Metropolitan 1960/1962 cancer annual registration rate about 27 Town lung cancer cases are to be expected annually and as only 20 deaths are occurring annually about 7 here are being cured annually.

**Cancer of
the uterus**

The annual Town deaths from this cause for years 1960-65 were 3, 4, 2, 3, 2 and 5, total 19. These figures are given to put the risks cared for by cervical screening in perspective. The female deaths from lung cancer in the same years were 3, 1, 4, 6, 4 and 0, total 18. Thus females who have the tobacco habit are wilfully accepting a risk of cancer of the lung similar to that risk of cancer of the womb which they may take steps to avoid.

Leukaemia

Annual Town deaths since 1958 were 6, 2, 1, 2, 1, 1, and 1. Average about 2. The crude death rate for the seven years is about 0.04. Rate for England and Wales 1965 = 0.06. Leukaemia is of interest in regard to ionising radiations.

**RESPIRATORY
DISEASE**

Town deaths from respiratory diseases 1958-65 have been 59, 60, 63, 75, 64, 65, 65 and 45. This gives a 1965 crude death rate of 1.0. The England and Wales rate was 1.4 and Greater London 1.5.

DEATHS RELATING
TO THE WELFARE
OF INFANTS AND
MOTHERS

Tables II,
XI and
XII

There was one maternal death in 1964 in hospital.

The death rates for infants before and after birth were akin to those of England and Wales. The probability was high that the greater death rates of the Borough in 1965 could occur by chance. The 17 deaths in the first day of life in 1964-65 gave a rate of 10 per thousand. That for England and Wales in 1964 was 7.1. All the infant deaths occurred in hospital except two of the cot deaths and that of an immature foundling. There were two cot deaths in 1964 aged two months and ten weeks, and one cot death in 1965 aged eight months. The homes were satisfactory and the infants were previously healthy.

All but 5 of 32 stillbirths in 1964-65 were in hospital.

DEATHS
THROUGH
INJURY

Motor Vehicle Accidents E810-E835

	Dartford Town	Deaths	Deaths all causes	Population
Table XII	1958	2	328	41140
Motor	1959	2	436	41940
Vehicle	1960	8	400	42950
Accidents	1961	13	452	43460
	1962	8	428	44180
	1963	5	431	44460
	1964	6	449	44420
	1965	4	443	44700
		<u>48</u>	<u>3367</u>	<u>347250</u>

Eng and Wales

1965	7515	549379	47763000
------	------	--------	----------

From above:

	Deaths as % of deaths from all causes	Death rate per 1000 pop.
Dartford Town 1958-65	1.4%	.14
Eng & Wales 1965	1.4%	.16

The above Dartford deaths are not necessarily on Dartford roads as deaths on the roads are assigned to the district of residence. The Chief Constable's reports show that deaths 1961-65 on roads in this district have been 13, 5, 4, 9, 6.

Home
Accidents

Home Accidents E870 - E936

	Dartford Town	Deaths	Deaths all causes	Population
	1961	1	452	43460
	1962	10	428	44180
	1963	2	431	44460
	1964	5	449	44420
	1965	<u>2</u>	<u>443</u>	<u>44700</u>
		<u>20</u>	<u>2203</u>	<u>221220</u>

England & Wales

1965	7017	549379	47763000
------	------	--------	----------

From above:

	Deaths as % of deaths from all causes	Death rate per 1000 pop.
Dartford Town 1961-65	0.9%	.09
Eng & Wales 1965	1.3%	.15

Thus our death rate from this cause is perhaps less than that for England and Wales.

Years
of life
lost

This loss is calculated on an assumption that we should each live at least to the age of 85. The details of deaths in this district have been:-

Dartford Town

Age at death in years - Motor Vehicle Accidents

1961	22	23	26	30	45	55	57	58	69	69	73	77	85
1962	4	20	42	42	47	52	56	82					
1963	6	13	15	61	79								
1964	2	16	33	61	62								
1965	39	43	61	86									

Home Accidents

1961	73												
1962	8 months	13 months	49	75	77	77	82	89	72	79			
1963	31	91											
1964	10 weeks	24	44	61	69								
1965	71	81											

Therefore years of life lost:

Motor Vehicle Accidents

1961	63	62	59	55	40	30	28	27	16	16	12	8	0	=	416
1962	81	65	43	43	38	33	29	3						=	335
1963	79	72	70	24	6									=	251
1964	83	69	52	24	23									=	251
1965	46	42	24	0										=	112

Total years of life lost = 1365

Home Accidents

1961	12													=	12
1962	84	84	36	10	8	8	3	0	13	6				=	252
1963	54	0												=	54
1964	85	61	41	24	16									=	227
1965	14	4												=	18

Total years of life lost = 563

Thus in Dartford the number of years of life lost from motor vehicle accidents is more than twice that from accidents in the home. Perhaps I should add that in elderly persons it is not always easy to say whether an injury is an underlying or merely a contributory cause of death.

Suicides

In the 12 years 1954-65 suicides have been:-

	Average population	Deaths	Rate per 100,000
Swanscombe U.D.	9000	6	5.5
Northfleet U.D.	21000	26	10.3
Dartford Town	43000*	64*	12.4
Dartford R.D.	48000*	33*	5.7
Eng & Wales	47,763,000	5161	10.8

*excluding long-stay hospitals

In Dartford Rural District and in Swanscombe Urban District a greater proportion than elsewhere of the population have lived their whole lives in the district and many work therein. One might conjecture that amongst the ageing generation in these two districts, diminished competition and increased neighbourliness might be associated with the lower suicide rate.

COMMUNICABLE DISEASE

Virus infections

Measles. This appeared at the end of 1964 and early in 1965 in the usual biennial pattern but in addition both in the Borough and Rural District there was a period of increased incidence in the spring and summer of 1964 which was out of phase with the usual periodicity of the disease.

Influenza. Although the virus was present in England and Wales in the winters of 1964 and 1965, sickness from influenza was not prevalent here. The graphs for sickness benefit in the winter months showed no departure from smoothness in the curve of weekly claims.

Poliomyelitis. No case occurred, the last was in 1957.

Chickenpox, Mumps, and some German measles were evident in 1964.

Vaccination. Acceptances for poliomyelitis were good. The figures for primary vaccination against smallpox were good but there was no re-vaccination against smallpox of school children. The number of passengers under observation for smallpox after arriving from endemic areas without valid certificates of vaccination were 9 in 1964 and 1 in 1965.

Bacterial diseases

Typhoid Fever. In 1964 and 1965 twenty-two contacts of cases occurring elsewhere were visited. One contact was excluded from work by his employer until the latter was advised otherwise.

Para-typhoid fever. In 1964 and 1965 four such contacts were visited.

Dysentery. In 1964 a female age nine years was confirmed as suffering from sonne dysentery. Whether the infection was a household one remained unknown as no specimens could be obtained therefrom. A male age 64 working at a long-stay hospital in the neighbouring district was confirmed as suffering from sonne dysentery. He returned to work after producing negative specimens.

Food poisoning. In 1964 *S. typhimurium* caused one family outbreak and one sporadic case - a nurse. Four families on separate occasions each with food poisoning symptoms amongst their members were investigated but no food poisoning organism was identified. In 1965 there were : one family outbreak due to *S. newport*, one family outbreak and one sporadic case both attributed to *Staphylococcus aureus*, two family outbreaks and three sporadic cases in which the cause remained unknown.

Enquiries were by the Council's Public Health Inspectors. Laboratory work by Public Health and Hospital laboratories.

Tuberculosis. The number of cases in the tuberculosis register continued a downward trend. Of those removed from the register by death in 1964/65 the underlying cause of death was given as tuberculosis in only 3 cases. Cancer of the lung was given in one case notified as suffering from tuberculosis in 1958.

The mass X-ray surveys picked up no active case of tuberculosis in the two years but in 5340 males found 6 with cancer of the lung.

Rheumatic fever. In 1965 two cases occurred in boys at an approved school. Of the 120 boys and 30 staff most submitted throat swabs and 7 showed Group A Beta haemolytic streptococci. This finding is not unusual in a healthy population.

Vaccination. The figures for vaccination against diptheria, whooping cough and tetanus were good.

Worm
diseases

One immigrant female from India, age 21, showed ancylostoma duodenale (hook worm) while in hospital.

RADIOACTIVITY

Fall-out
Appendix
VII

As a result of test explosions in the Arctic in 1958 and 1961 and both in the Arctic and Pacific in 1962 fall-out of radioactive material was of interest during the period under review.

During these years the Agricultural Research Council Radiobiological Laboratory has kept the position under observation in regard to the food of the country as a whole while in Kent the County Analyst has kept local food supplies under observation. Iodine 131 and strontium 90 are the two radioactive materials which require most attention.

The radioactivity of iodine 131 is only short lived and this isotope is therefore not a great food problem except for infants dependent on milk, at the time of the fall-out.

The radioactivity of strontium 90 decays only slowly merely half being lost in 30 years. Chemically it is similar to calcium and consequently strontium is deposited in our bones where it is an intimate influence on blood forming tissue. To be on the safe side there should be caution should the diet average more than 130 strontium units a year. It will be seen from Appendix VII that the strontium 90 in milk was only about one-sixth of this figure and the trend was downwards.

Use of
radioactive
material

At the end of 1965 eight premises were registered by the Ministry for keeping and use of radioactive material and three premises were registered for disposal and accumulation of radioactive waste.

DUST FROM CEMENT WORKS

In a memorandum of 1956 to the Joint Committee for the Abatement of Atmospheric Pollution and in my report for 1958 to this Council this feature of our environment was the subject of a review which included the history of the nuisance, the methods of manufacture of cement, the methods of dust prevention, the nature of the dust and its relation to the health of the local population. The review that now follows concerns the further evolution of the position to the end of 1965.

The Cement
Works

In 1959 one of the 4 kilns at Bevans Works, Northfleet was modified to the use of ^{the} semi-dry process and a new electrostatic precipitator, after preliminary difficulties, was provided. In 1960 two other new precipitators for two other kilns at Bevans were put into use and also a new 350' chimney. In 1961 the new 400' chimney at Swanscombe Works was completed and in the following year the flue system came into operation to connect all normal kilns to that chimney. In 1962 a new precipitator was provided for the Metropolitan Works across the river and six small kilns on only chain arrestment were closed down. At the time of excessive dust nuisance in 1962 the production from Thames-side was reduced.

In 1963 the 4th kiln at Bevans Works was provided with a precipitator, a second new precipitator was provided for the Metropolitan Works and no kiln on Thames-side was allowed to work without an external means of dust arrestment even for brief periods. At Thames-side by the end of that year £2 million had been spent on dust arrestment since 1945 and the "overall average" dust slip had come down to 0.4 grains per cu.ft. in the emitted flue gases and the target set was 0.2 grains per cu.ft. which we are told is 0.2% of clinker produced. The "overall average" dust slip in 1964 and 1965 was 0.3 grains per cu.ft.

Trouble
from clay

In 1961 with the exception of Bevans the Thames-side works in Kent had been obtaining estuarine clay from Cliff Marshes, which clay has a high silica and alkali content. As more clay was extracted the more it deteriorated in quality in this respect and the high alkali content resulted in a greater dust burden on the precipitators with the dust failing to dislodge from the collecting electrodes on rapping. Thus arrestment of dust was seriously impaired. The prospect of trouble became known to those concerned with management and administration and in 1961 steps were taken to obtain eocene clay from Essex, which clay has not the difficult properties of the estuarine clay.

Unfortunately before arrangements which included seeking planning permission were completed, weather and precipitator behaviour combined in 1962 to create periods of exceptional dust nuisance on Thames-side. The accompanying public indignation action and remedy are outlined below.

By the end of 1963 all except the Swanscombe Works were on eocene clay and arrangements for these works to obtain this clay subsequently materialised by the end of 1964. Also the districts of the Alkali etc. Works Act Inspectors were reduced in size so that the latter could give greater time to the Thames-side problems.

The reports from the Chief Alkali etc. Works Inspector and from the Industry are informative on these matters.

Adminis-
trative
action

In 1959 an approach was made from the Joint Committee to the Ministry for a public hearing into the nuisance caused by dust from cement works but the Minister was disposed to regard the matter as one of public relations in which the industry should take its part.

In 1960 a deputation from the Joint Committee met their Members of Parliament to discuss the assistance the latter could give towards obtaining information on the efficiency of dust arrestment plant, on new processes of manufacture and on the means by which the Inspectorate were able to carry out their duties.

In 1962 a deputation from the Joint Committee waited on the Minister of Housing and Local Government. The deputation expressed disappointment at the lack of improvement in the dust nuisance position and submitted a detailed statement. The Minister emphasized that he regarded the matter as seriously as did the Joint Committee. He placed importance on the obtaining of eocene clay from Essex.

In November 1962 the Member of Parliament for Dartford raised several questions in the House of Commons about the nuisance.

In 1963 a panel of Town Clerks and Clerks of Councils came into being to report on what legal action could be taken in the event of further serious dust deposit.

In 1963 the Member of Parliament pressed the Ministry of Housing and Local Government for the dust/clinker ratio to be supplied for individual works. The dust emitted as a percentage of clinker produced in a given time is used as an index of the ability of a plant to avoid dust nuisance.

The Minister however would not agree to give the figure for individual works but agreed to make available in the annual reports of the Chief Inspector the annual average figure for all works at Thames-side. When the figures appeared for 1964 and 1965 they were not the ratios but were grains per cu.ft. of flue gas.

In other manufacturing processes we can observe what is emitted from the chimneys but in the cement industry the dust is masked by steam and as the figure for dust content is not revealed, the public are not allowed to compare one works emission with that of another.

Grains per cu.ft. of flue gases, the figure given can, we are told, be easily converted to the figure for the ratio of dust emitted to clinker produced. Dust emitted at 0.2 grains per cu.ft is approximately equivalent to a rate of 0.2% clinker produced. I imagine however

that this only applies where the method of manufacture is uniform and this is not the case at Thames-side where the Northfleet Works as mentioned above, has the semi-dry method of manufacture.

Matters
discussed
elsewhere

The nature of this dust, the future deposits of dust, the features of suspended dust, the relationship of the dust to the health of the community, the difficulties of studying this relationship, the organizations made aware of our dust nuisance, the desirability or otherwise of research are aspects of this feature of our environment which have been discussed in my reports to other local authorities and for reasons of space, it is not expedient to repeat these discussions here.

Standard
deposit
gauge
readings

In spite of their limitations these gauges are the means by which the trend of dust nuisance has been followed by public health authorities in this area. The trend lines from 1954 to 1962 - when calculations were suspended for a review of the formula for assessing dust from cement works - are given in reports to other local authorities and for reasons of space, it is not expedient to repeat them here. Suffice to say that from 1958 to 1962 in figures for dust from cement works a rising trend was detectable.

As weather is influential in determining the amount of dust deposit in the gauges the percentage of dust from cement works as related to dust from other sources might be a guide to the trend of emissions from the works. The trend lines for this from 1959 to 1962 was markedly upward but they were not entirely reliable as dust from other sources is influenced by the fuels used in other industries and these have been subject to change..

In Appendix VI. of this report instead of trend lines histograms have been used for the years 1963, '64 '65.

The percentage of dust from cement works to dust from other sources in the combined readings of the most affected gauges - Horns Cross, Northfleet and Swanscombe - is perhaps a concise guide if one remembers the above limitations. A downward trend is detectable.

What do
the public
really
think ?

In the cement production area this Council organized the rehousing of occupants of houses in the immediate vicinity of certain cement works on the grounds that the environment created by dust from cement works was one in which people could not be expected to live. Nevertheless, about a $\frac{1}{4}$ mile away in Swanscombe newly built private enterprise houses were readily sold at about £4000 each. Furthermore, an extensive residential redevelopment area has been provided by Northfleet Urban District Council in the immediate vicinity of the cement works there.

Talking to residents of the cement producing area reveals toleration as well as indignation.

Best
practicable
means

While feeling that this dust nuisance should be kept down to a minimum, the public would not like to see the supply of cement unnecessarily restricted and thus, we can hardly wish for any better standard of dust prevention than the existing one which requires the provision of the best practicable means. This standard has the great virtue that it is adaptable to circumstances - it can be exacting where the residential community is large and cement production high, and can be enhanced as technical knowledge advances and resources improve. However, if adaptability is to be its virtue then interpretation of this standard should be kept under observation.

Any nuisance is tolerated better if it is known that it is not the product of thoughtlessness or lack of consideration of the public interest. Adaptability inherent in the above standard of dust prevention is no doubt used in the interest of the public as well as in the interest of the industry but it is not equitable for the industry to have a monopoly of the relevant facts. The local authorities should also have access to information on how this standard is being interpreted.

Not only is it necessary for the best practicable means to be taken but it is equally necessary for the best practicable means to be seen to be taken. By declining to make certain readings relating to dust emission of individual works available to us as described above, the Minister appears to be content that we should be short of this ideal.

ADMINISTRATION

It is a duty to include in this report observations on sanitary administration so I will discuss here certain features of our local organisation as seen through the eyes of the district medical officer of health.

Possibilities

The changes of 1948 removed the management of personal health services from us leaving us with the management of certain matters of environment (i.e. housing etc.), controlling communicable disease, keeping ourselves informed on health affairs and directing informed influence where appropriate. The gap left by the departed personal health services was filled by the M.O.H. taking on appointments with three neighbouring authorities so that the population now served is almost 140,000.

Much is done or prohibited in the name of public health and there is a need for sound assessment of such action in terms of physical health and happiness. Had this need been better recognised the task of informing ourselves on the health affairs of our area would have expanded our work into that of a department of local health information conducting a continuing inquiry into the health affairs of our community and exchanging information with central authorities engaged in related work. Our records which are bare essentials would have been amplified and blended with those of the hospitals general medical services and personal health services.

Our department of local health information evolved above would have been linked with one local professional advisory committee and by now buying computer time would be our objective - statistical observation of the community is essential to public health administration.

These possibilities are fanciful but it is the rigidity and the obsolescence of district administrative structure that makes them so. It is not sufficiently appreciated that influencing the health of the future is a task different in nature from that which benefitted the past.

Realities

Amenity and local representation are matters of administration as well as public health and after 1948 the four public health committees of the four authorities served remained separate. The spectrum of discussion remained different from that of a professional committee. There was no lack of goodwill and four offices essential for separate administration were made available to the medical officer - the pity was and is that this generous quadruplication provided management with an obstacle rather than an asset.

In addition to the four public health committees five hospital committees and two safety committees invited attendance and it was a duty to accept. During certain vital periods in the evolution of certain voluntary organisations, membership to their committees was also accepted and in addition there were the committees of local professional organisations. On these committees biological public health is a fringe subject and the medical officer of health has to sit through many other discussions before his subject is reached. Thus while the time spent is not unproductive much chair-borne day dreaming has been and is incurred by him in the duty of informing himself and others on certain health affairs of this district.

Joint ad hoc committees may be thought to be the answer to the common interests of small local authorities and one was formed for matters concerning atmospheric pollution but the chairmanship changes each year, the officers are honorary and the committee works more as a public relations and pressure group rather than a working party for the study of local environment. Should a proposal which could contribute to human health arise in this district it would find difficulty in obtaining expression - the first obstacle being to convince other bodies not directly concerned with this district.

The district medical officer now has no precise direct bond with any of his technical colleagues apart from clerical assistants of whom none is fully engaged on his work. Co-operation in recognised public health matters is readily forthcoming but where to recognise public health and where to recognise amenity as the underlying motive of administration remains an unanswered question.

With the transfer of the personal health services a source of information on district health was lost. For information on community health the medical officer of health is now largely dependant on other public bodies and the information one can ask for is limited. While unanalysed data will pass for an annual report the inevitable delay following attempts to be informative draws innuendos from above.

Because the population of the individual local authorities here is small the statistics provided by the Registrar General are in less detail than those given to larger authorities. In regard to communicable disease the regulations give us but limited information - what is informative is the weekly summary of the public health laboratory service but this is not officially available.

No deputy is designated so that when the medical officer of health is not available the law cannot be fully asserted here on certain health matters which although uncommon are nevertheless of importance when they occur.

As the local authorities are small extraneous duties such as the medical assessment of candidates and of employees has to be mixed up with public health work and in the main has to be done when convenient to other departments. This consumes time.

Improvements attempted

The administrative set-up here is unusual - there are only eleven such appointments in England and Wales. With adjustment it could serve the public well and have useful possibilities but with so few colleagues in like position the scope for support in effecting a remedy is limited.

Memoranda on administrative matters have been submitted to three authorities with varying effect, and in this Borough the pattern that has evolved is the converse of that in the Rural District. When this local authority had its offices $\frac{1}{4}$ mile from the neighbouring authority, a proposal was made for the two public health offices to be merged - both councils declined. For the one joint committee a technical panel was formed but it lasted only three meetings.

In regard to the personal health services some sort of decentralisation was hoped for but appeared not even to get consideration. Health education gets little attention in this district and proposals to County level were made to facilitate this district doing this work here for which the County get a grant - nothing resulted.

To remove obsolescence from the law on notifiable disease the County and the Local Government Associations were approached but no support was received. Finally a professional organisation was approached which submitted a memorandum to the Ministry. That was a dozen years ago - signs of response are only just appearing. Two attempts have been made to get the duty to provide County Hall with health information made reciprocal, both attempts were unsuccessful. The proposals of the County to limit the information on vaccination

were formally opposed and although our reasoning was appreciated by the Ministry, the County's proposals went into effect. The useful weekly summary of the Public Health Laboratory Service which is not officially available to medical officers of health we get from "under the counter" thanks to colleagues outside Public Health. The short-comings of the details provided by the Registrar General we have remedied by instituting our own classification of deaths and our own punch card system. It is time-consuming.

In regard to medical examinations, much time has been saved by the use of medical questionnaires and in many cases not asking to see the candidate. So far this practice has not let us down but it is widely different from that followed elsewhere.

In regard to there being no designated deputy, there was an opportunity to so designate a neighbouring colleague but not all neighbouring councils would agree and the proposal could not survive that obstacle.

Conclusions The appropriate adviser on public health matters thirty years hence may now be a young person immersed in mathematics. He will not be able to follow his vocation here without a change in administrative structure. Unless we have an outbreak of serious acute disease - the chances are remote - remedy must await the reorganisation of Local Government and the Health Service.

For which we can now hope.

Amenity is eminently the concern of small local authorities. Public health is a misfit in their responsibilities. Clues for the future reorganisation may be found in the following:-

- 1) Work to improve amenity be separated from work to improve public health;
- 2) Amenity work to remain with local government;
- 3) Executive side of public health work be the province of the national health service through area health boards;
- 4) The advisory side of public health work be provided by a local office of health information linked with the office of the Registrar General;
- 5) This local office be administered by a local medical actuary responsible to the Registrar General and assisted by a local professional committee.

J. H. H.

JHH/MP.

DARTFORD BOROUGH

TABLE I.

SOCIAL CONDITIONS

		1964	1965
Area (acres)		4,292	4,292
Population (Census 1931)	28,928		
" (Census 1951)	40,544		
" (Census 1961)	46,146		
Mid-year home population (R.G.'s estimate)		46,420	46,700
Number of dwellings as at 1st April		14,366	14,465
(Items A1, A2, B3, B6 & C13 of the Analysis of Rateable values)			
Rateable value		£1,877,916	£1,877,893
Sum represented by 1d. rate		7,637	7,600

POPULATION. Increases in the population are, due to natural causes, i.e. excess of births over deaths, and immigration, both being related to new houses built.

Year	1960	1961	1962	1963	1964	1965
Est. mid-year home population	44,950	45,460	46,180	46,460	46,420	46,700
Increase or decrease on previous year	+1,010	+510	+720	+280	-40	+280
Births	735	824	789	780	865	898
Deaths including Bexley Hosp.	525	625	631	605	588	631
Natural increase (excess of births over deaths)	210	199	158	175	277	267
Immigration or emigration	+800	+311	+562	+105	-317	+13
Houses built	253	191	177	130	258	171

COMPARABILITY FACTORS. When local crude birth and death rates are multiplied by the area comparability factors they are comparable with the rate for England and Wales or with the adjusted rate for any other area. In the last eight years the factors for births (governed by the proportion of women aged 18 - 44 years) and for deaths (governed by the proportions of all age groups) have been as follows:-

Year	1958	1959	1960	1961	1962	1963	1964	1965
Births	0.98	0.98	0.97	0.97	0.97	0.92	0.92	0.92
Deaths	0.76	0.85	0.85	0.86	0.78	0.85	0.92	0.84

From 1953 to 1957 all deaths at Bexley Hospital were assigned to Dartford. From 1958 onwards only deaths of persons resident at the hospital six months or more were so assigned.

The following give a glimpse of some social conditions -

	1962	1963	1964	1965
Cases dealt with by the N.S.P.C.C.				
Children affected	44	63	103	81
Prosecution for neglect	-	-	-	-
Unemployed on December 31st. (Dartford and District)	-			
Men	632	215	110	67
Women	38	60	23	13
Illegitimate birth rate for 1,000 births -				
Dartford Borough	40	46	55	50
Dartford Rural District	29	30	72	77
Northfleet Urban District	38	38	51	39
Swanscombe Urban District	39	64	56	34
England and Wales	66	69	72	77
Kent A.C.	53	56	62	68

DARTFORD BOROUGH
TABLE I - (continued)

POPULATION OF YOUNG PERSONS. A guide is necessary to the young population in the district in order that we may form an idea from vaccinations done of the proportion who have been given immunity to certain diseases. A rough estimate can be made from the births which have occurred in the district in the past. This assumes a stable population and does not take into account deaths after one year of age or the balance of those coming into the district over those leaving.

Age		Births		Infant	Approx.	Infants	Approx.
Dec. 31st		Year	Number	deaths	Population	surviving	Population
1964	1965				Age Dec.1964	to 1 year	Age Dec. 1965
-1	0	1965	898	22		876	
0	1	1964	865	13		852	
1	2	1963	780	28		752	
2	3	1962	789	16	0 - 4 years	773	0 - 4 years
3	4	1961	824	17	= 3908	807	= 4060
4	5	1960	735	11		724	
5	6	1959	700	11		689	
6	7	1958	688	20		668	
7	8	1957	697	6	5 - 11 years	691	5 - 11 years
8	9	1956	632	14	= 4381	618	= 4528
9	10	1955	581	12		569	
10	11	1954	579	10	5 - 15 years	569	5 - 15 years
11	12	1953	591	14	= 6667	577	= 6753
12	13	1952	533	18		515	
13	14	1951	562	13	12 - 15 years	549	12 - 15 years
14	15	1950	594	10	= 2286	584	= 2225
15	16	1949	656	18		638	
16	17	1948	722	17		705	
17	18	1947	816	28		788	
18	19	1946	729	18	16 - 18 years	711	16 - 18 years
19	20	1945	581	17	= 2204	564	= 2131
20	21	1944	651	26		625	

Population of children (i) aged 5 - 11 years

Dec. 31st.	Birth years	Est. population
1961	1950- 56	3981
1962	1951- 57	4088
1963	1952- 58	4207
1964	1953- 59	4381
1965	1954- 60	4528

(ii) aged 5 - 14 years

1965	1951- 60	6169
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NATURAL INCREASE

	Births	Deaths	Natural	Population	Rate of natural
		(Town)	increase	(Town)	increase per 1000
					population
1958	688	454	234	41,140	5.7
1959	700	436	264	41,940	6.3
1960	735	400	335	42,950	7.9
1961	824	452	372	43,460	8.6
1962	789	428	361	44,180	8.2
1963	780	431	349	44,460	7.8
1964	865	449	416	44,420	9.4
1965	898	445	453	44,700	10.1

DARTFORD BOROUGH
TABLE II - BIRTHS AND DEATHS, 1964 and 1965

		1964			1965		
		M	F	Persons	M	F	Persons
Live Births:	Legitimate	426	392	818	428	425	853
	Illegitimate	<u>26</u>	<u>21</u>	<u>47</u>	<u>25</u>	<u>20</u>	<u>45</u>
		452	413	865	453	445	898
Deaths from all causes:		274	314	588	324	307	631
Deaths from pregnancy, childbirth, abortion		-	1	1	-	-	-
Stillbirths:	Legitimate	8	4	12	10	8	18
	Illegitimate	<u>1</u>	<u>-</u>	<u>1</u>	<u>1</u>	<u>-</u>	<u>1</u>
		9	4	13	11	8	19
Infant deaths by age:							
0 to 6 days	Legitimate	4	5	9	2	11	13
	Illegitimate	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>
		5	6	11	3	12	15
7 to 27 days	Legitimate	1	-	1	1	1	2
	Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
		1	-	1	1	1	2
28 to 364 days	Legitimate	1	2	3	3	2	5
	Illegitimate	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
		1	2	3	3	2	5
Total under 1 year							
	Legitimate	6	7	13	6	14	20
	Illegitimate	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>2</u>
		7	8	15	7	15	22

Rates per 1,000 Home Population

	Dartford Borough		England & Wales	
	1964	1965	1964	1965
Crude live birth rate	18.6	19.2	18.5	18.1
Crude live birth rate adjusted by comparability factor	17.2	17.7	18.5	18.1
Crude death rate	12.7	13.5	11.3	11.5
Crude death rate adjusted by comparability factor	11.7	11.4	11.3	11.5

Rates per 1,000 live and stillbirths

Maternal death rate	1.1	-	0.25	0.25
Stillbirth rate	14.8	20.7	16.3	15.8
Perinatal death rate (s. bs. & deaths 0-6 days)	27.3	37.1	28.2	26.9

Rates per 1,000 Live Births

Early neonatal death rate (deaths 0-6 days)	12.7	16.7	12.0	11.3
Neonatal death rate (deaths 0-27 days)	13.9	18.9	13.8	13.0
Infant death rate (0-364 days)	17.2	24.5	19.9	19.0

DARTFORD BOROUGH

TABLE IIIA - CAUSES OF DEATH ACCORDING TO AGE

Registrar General's Return

1964

Persons	All ages	Under 4 weeks	4 wks - 11 mths.	1 - 4 years	5 - 14 years	15 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 +	Main causes
All causes	588	12	3	1	-	7	5	18	34	90	152	266	
Tuberculosis, respiratory	-	-	-	-	-	-	-	-	-	-	-	-	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	
Syphilitic disease	2	-	-	-	-	-	-	-	-	-	2	-	
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	
Measles	-	-	-	-	-	-	-	-	-	-	-	-	
Other infective and parasitic diseases	-	-	-	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, stomach	19	-	-	-	-	-	-	2	2	2	6	7	108
Malignant neoplasm, lung bronchus	31	-	-	-	-	-	-	-	4	8	12	7	
Malignant neoplasm, breast	8	-	-	-	-	-	1	-	-	1	1	5	
Malignant neoplasm, uterus	4	-	-	-	-	-	-	-	-	2	-	2	
Other malignant and lymphatic neoplasms	45	-	-	-	-	1	1	1	6	4	15	17	
Leukaemia, aleukaemia	1	-	-	-	-	-	-	-	-	-	-	1	
Diabetes	6	-	-	-	-	-	-	-	-	1	3	2	
Vascular lesions of nervous system	67	-	-	-	-	-	-	2	2	9	15	39	67
Coronary disease, angina	128	-	-	-	-	-	-	4	6	31	36	51	212
Hypertension with heart disease	10	-	-	-	-	-	-	-	-	1	1	8	
Other heart disease	40	-	-	-	-	-	-	3	3	1	4	29	
Other circulatory disease	34	-	-	-	-	-	1	-	2	1	16	14	
Influenza	-	-	-	-	-	-	-	-	-	-	-	-	116
Pneumonia	66	-	1	-	-	1	-	1	-	6	15	42	
Bronchitis	41	-	-	-	-	-	-	-	3	9	11	18	
Other diseases of the respiratory system	9	-	-	-	-	-	-	-	1	1	3	4	
Ulcer of stomach and duodenum	2	-	-	-	-	-	-	-	1	-	-	1	
Gastritis, enteritis and diarrhoea	4	-	-	-	-	-	-	1	1	1	1	-	
Nephritis and nephrosis	-	-	-	-	-	-	-	-	-	-	-	-	
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	-	-	-	
Pregnancy, childbirth, abortion	1	-	-	-	-	1	-	-	-	-	-	-	
Congenital malformations	11	7	1	-	-	1	-	-	-	1	-	1	
Other defined and ill-defined diseases	46	5	-	-	-	1	3	3	7	9	9	18	
Motor vehicle accidents	6	-	-	1	-	2	1	-	-	2	-	-	
All other accidents	6	-	1	-	-	1	-	1	-	1	2	-	
Suicide	1	-	-	-	-	-	-	-	-	1	-	-	
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-	-	

DARTFORD BOROUGH

TABLE IIIB - CAUSES OF DEATH ACCORDING TO AGE
Registrar General's Return

Persons	1965												Main causes
	All ages	Under 4 weeks	4 weeks-11 months	1 - 4 yrs.	5 - 14 yrs.	15 - 24 yrs.	25 - 34 yrs.	35 - 44 yrs.	45 - 54 yrs.	55 - 64 yrs.	65 - 74 yrs.	75 +	
All causes	631	17	5	2	2	4	6	14	27	109	158	287	
Tuberculosis, Resp.	2	-	-	-	-	-	-	-	-	2	-	-	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	
Syphilitic disease	2	-	-	-	-	-	-	-	-	-	1	1	
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	
Measles	-	-	-	-	-	-	-	-	-	-	-	-	
Other infective and parasitic diseases	1	-	-	-	-	-	-	-	-	1	-	-	
Malignant neoplasm, stomach	9	-	-	-	-	-	-	-	-	2	4	3	92
Malignant neoplasm, lung bronchus	23	-	-	-	-	-	-	1	-	9	9	4	
Malignant neoplasm, breast	10	-	-	-	-	-	-	-	2	5	2	1	
Malignant neoplasm, uterus	6	-	-	-	-	-	-	1	1	3	1	-	
Other malignant and lymphatic neoplasms	42	-	-	-	1	-	-	6	4	6	10	15	
Leukaemia, aleukaemia	2	-	-	-	-	-	-	-	-	1	-	1	
Diabetes	8	-	-	-	-	-	-	-	1	2	3	2	
Vascular lesions of nervous system	64	-	-	-	-	-	-	-	2	12	19	31	71
Coronary disease, angina	126	-	-	-	-	-	-	-	5	31	36	54	220
Hypertension with heart disease	9	-	-	-	-	-	-	-	-	-	2	7	
Other heart disease	69	-	-	-	-	-	1	-	3	6	17	42	
Other circulatory disease	16	-	-	-	-	-	-	-	2	-	2	12	
Influenza	-	-	-	-	-	-	-	-	-	-	-	-	145
Pneumonia	106	-	-	-	-	1	-	1	-	9	24	71	
Bronchitis	35	-	1	-	-	-	-	-	1	7	8	18	
Other diseases of respiratory system	4	-	-	-	-	-	-	-	-	-	2	2	
Ulcer of stomach and duodenum	5	-	-	-	-	-	1	-	1	1	1	1	
Gastritis, enteritis and diarrhoea	4	-	1	-	-	-	-	-	1	-	1	1	
Nephritis and nephrosis	4	-	-	-	-	1	1	-	-	-	-	2	
Hyperplasia of prostate	1	-	-	-	-	-	-	-	-	-	-	1	
Pregnancy, childbirth, abortion	-	-	-	-	-	-	-	-	-	-	-	-	
Congenital malformations	9	2	2	2	1	-	1	-	-	-	1	-	
Other defined and ill-defined diseases	57	15	1	-	-	1	1	1	2	9	14	13	
Motor vehicle accidents	5	-	-	-	-	-	-	3	-	1	-	1	
All other accidents	6	-	-	-	-	-	-	-	1	-	1	4	
Suicide	6	-	-	-	-	1	1	1	1	2	-	-	
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-	-	

DARTFORD BOROUGH

TABLE IIIC - CAUSES OF DEATH ACCORDING TO AGE AND SEX

Registrar General's Return

1964

	All ages	27 days	4 weeks	1 - 4 years	5 - 14 years	15 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 +	Main causes
Males													
All causes	274	6	1	-	-	5	1	12	21	51	79	98	
Syphilitic disease	1	-	-	-	-	-	-	-	-	-	1	-	
Malignant neoplasm, stomach	6	-	-	-	-	-	-	1	1	1	-	3)	
Malignant neoplasm, lung, bronchus	27	-	-	-	-	-	-	-	3	5	12	7)	55
Other malignant & Lymph. neoplasms	21	-	-	-	-	1	-	-	2	3	8	7)	
Leukaemia, aleukaemia	1	-	-	-	-	-	-	-	-	-	-	1)	
Vascular lesions of nerv. system	23	-	-	-	-	-	-	1	1	4	7	10	=23
Coronary disease, angina	67	-	-	-	-	-	-	4	6	21	18	18)	
Hypertension with heart dis.	3	-	-	-	-	-	-	-	-	-	-	3)	
Other heart disease	20	-	-	-	-	-	-	2	2	1	2	13)	164
Other circulatory disease	18	-	-	-	-	-	-	-	-	-	10	8)	
Pneumonia	23	-	-	-	-	-	-	1	-	3	7	12)	
Bronchitis	29	-	-	-	-	-	-	-	3	6	9	11)	
Other dis. of respiratory system	4	-	-	-	-	-	-	-	1	-	1	2)	
Ulcer of stomach & duodenum	1	-	-	-	-	-	-	-	1	-	-	-	
Gastritis, enteritis & diarrhoea	3	-	-	-	-	-	-	1	-	1	1	-	
Congenital malformations	5	4	-	-	-	1	-	-	-	-	-	-	
Other defined and ill-def. dis.	14	2	-	-	-	-	1	2	1	3	2	3	
Motor Vehicle accidents	4	-	-	-	-	2	-	-	-	2	-	-	
All other accidents	4	-	1	-	-	1	-	-	-	1	1	-	
Females													
All causes	314	6	2	1	-	2	4	6	13	39	73	168	
Syphilitic disease	1	-	-	-	-	-	-	-	-	-	1	-	
Malignant neoplasm, stomach	13	-	-	-	-	-	-	1	1	1	6	4)	
Malignant neoplasm, lung, bronchus	4	-	-	-	-	-	-	-	1	3	-	-	
Malignant neoplasm, breast	8	-	-	-	-	-	1	-	-	1	1	5)	53
Malignant neoplasm, uterus	4	-	-	-	-	-	-	-	-	2	-	2)	
Other malignant & Lymph. neoplasms	24	-	-	-	-	-	1	1	4	1	7	10)	
Diabetes	6	-	-	-	-	-	-	-	-	1	3	2	
Vasc. lesions of nerv. system	44	-	-	-	-	-	-	1	1	5	8	29	=44
Coronary disease, angina	61	-	-	-	-	-	-	-	-	10	18	33)	
Hypertension with heart disease	7	-	-	-	-	-	-	-	-	1	1	5)	
Other heart disease	20	-	-	-	-	-	-	1	1	-	2	16)	164
Other circulatory disease	16	-	-	-	-	-	1	-	2	1	6	6)	
Pneumonia	43	-	1	-	-	1	-	-	-	3	8	30)	
Bronchitis	12	-	-	-	-	-	-	-	-	3	2	7)	
Other disease of resp. system	5	-	-	-	-	-	-	-	-	1	2	2)	
Ulcer of stomach & duodenum	1	-	-	-	-	-	-	-	-	-	-	1	
Gastritis, enteritis & diarrhoea	1	-	-	-	-	-	-	-	1	-	-	-	
Pregnancy, childbirth, abortion	1	-	-	-	-	1	-	-	-	-	-	-	
Congenital malformations	6	3	1	-	-	-	-	-	-	1	-	1	
Other defined and ill-defin. dis.	32	3	-	-	-	-	-	1	2	4	7	15	
Motor vehicle accidents	2	-	-	1	-	-	1	-	-	-	-	-	
All other accidents	2	-	-	-	-	-	-	1	-	-	1	-	
Suicide	1	-	-	-	-	-	-	-	-	1	-	-	

DARTFORD BOROUGH

TABLE IIID - CAUSES OF DEATH ACCORDING TO AGE AND SEX

Registrar General's Return

1965

	All ages	27 days	4 weeks	1 - 4 years	5 - 14 years	15 - 24 years	25 - 34 years	35 - 44 years	45 - 54 years	55 - 64 years	65 - 74 years	75 +	Main causes
<u>Males</u>													
All causes	324	4	3	1	1	2	3	10	16	69	94	121	
Respiratory tuberculosis	2	-	-	-	-	-	-	-	-	2	-	-	
Syphilitic disease	2	-	-	-	-	-	-	-	-	-	1	1	
Malignant neoplasm, stomach	5	-	-	-	-	-	-	-	-	2	1	2)	
Malignant neoplasm, lung bronchus	23	-	-	-	-	-	-	1	-	9	9	4)	15
Other Malignant & lymph.neoplasms	28	-	-	-	1	-	-	4	3	4	8	8)	
Leukaemia, aleukaemia	2	-	-	-	-	-	-	-	-	1	-	1)	
Diabetes	3	-	-	-	-	-	-	-	1	1	1	-	
Vascular lesions of nerv.system	18	-	-	-	-	-	-	-	1	5	6	6	=18
Coronary disease, angina	75	-	-	-	-	-	-	-	5	22	23	25)	
Hypertension with heart disease	4	-	-	-	-	-	-	-	-	-	1	3)	
Other heart disease	36	-	-	-	-	-	1	-	2	5	7	21)	
Other circulatory disease	5	-	-	-	-	-	-	-	-	-	2	3)	
Pneumonia	46	-	-	-	-	-	-	1	-	5	16	24)	196
Bronchitis	27	-	1	-	-	-	-	-	1	6	7	12)	
Other diseases of resp. system	3	-	-	-	-	-	-	-	-	-	2	1)	
Ulcer of stomach and duodenum	4	-	-	-	-	-	-	-	1	1	1	1	
Gastritis, enteritis & diarrhoea	2	-	1	-	-	-	-	-	-	-	1	-	
Nephritis and nephrosis	4	-	-	-	-	1	1	-	-	-	-	2	
Hyperplasia of prostate	1	-	-	-	-	-	-	-	-	-	-	1	
Congenital malformations	2	-	-	1	-	-	-	-	-	-	1	-	
Other def. and ill-def. diseases	23	4	1	-	-	-	1	1	1	4	7	4	
Motor vehicle accidents	3	-	-	-	-	-	-	2	-	1	-	-	
All other accidents	2	-	-	-	-	-	-	-	-	-	-	2)	
Suicide	4	-	-	-	-	1	-	1	1	1	-	-	
<u>Females</u>													
All causes	307	13	2	1	1	2	3	4	11	40	64	166	
Other infective and parasitic disease	1	-	-	-	-	-	-	-	-	1	-	-	
Malignant neoplasm, stomach	4	-	-	-	-	-	-	-	-	-	3	1)	
Malignant neoplasm, breast	10	-	-	-	-	-	-	-	2	5	2	1)	
Malignant neoplasm, uterus	6	-	-	-	-	-	-	1	1	3	1	-	35
Other malignant & Lymph.neoplasms	14	-	-	-	-	-	-	2	1	2	2	7)	
Diabetes	5	-	-	-	-	-	-	-	-	1	2	2	
Vascular lesions of nerv.system	46	-	-	-	-	-	-	-	1	7	13	25	=46
Coronary disease, angina	51	-	-	-	-	-	-	-	-	9	13	29)	
Hypertension with heart dis.	5	-	-	-	-	-	-	-	-	-	1	4)	
Other heart disease	33	-	-	-	-	-	-	-	1	1	10	21)	
Other circulatory disease	11	-	-	-	-	-	-	-	2	-	-	9)	169
Pneumonia	60	-	-	-	-	1	-	-	-	4	8	47)	
Bronchitis	8	-	-	-	-	-	-	-	-	1	1	6)	
Other disease of resp. system	1	-	-	-	-	-	-	-	-	-	-	1)	
Ulcer of stomach and duodenum	1	-	-	-	-	-	1	-	-	-	-	-	
Gastritis, enteritis & diarrhoea	2	-	-	-	-	-	-	-	1	-	-	1	
Congenital malformations	7	2	2	1	1	-	1	-	-	-	-	-	
Other def. and ill-def. diseases	34	11	-	-	-	1	-	-	1	5	7	9	
Motor vehicle accidents	2	-	-	-	-	-	-	1	-	-	-	1	
All other accidents	4	-	-	-	-	-	-	-	1	-	1	2	
Suicide	2	-	-	-	-	-	1	-	-	1	-	-	

DARTFORD BOROUGH

TABLE IVA - CAUSES OF DEATH ACCORDING TO AGE

TOWN - Compiled locally

		1964											
	All ages	Under 4 weeks	4 wks - 11 mos.										
			4 wks	1 - 2	2 - 4	5 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 +
All Causes	449	12	3	-	1	-	6	4	14	28	72	110	199
Tuberculosis, respiratory	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilitic disease	2	-	-	-	-	-	-	-	-	-	-	2	-
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Whooping Cough	-	-	-	-	-	-	-	-	-	-	-	-	-
Meningococcal infections	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Other infective & parasitic diseases	-	-	-	-	-	-	-	-	-	-	-	-	-
Malignant neoplasm, stomach	16	-	-	-	-	-	-	-	1	2	1	5	7
Malignant neoplasm, lung bronchus	29	-	-	-	-	-	-	-	-	4	8	10	7
Malignant neoplasm, breast	6	-	-	-	-	-	-	-	-	-	1	1	4
Malignant neoplasm, uterus	2	-	-	-	-	-	-	-	-	-	2	-	-
Other malignant and lymphatic neoplasms	37	-	-	-	-	-	1	2	1	5	3	11	13
Leukaemia, aleukaemia	1	-	-	-	-	-	-	-	-	-	-	-	1
Diabetes	2	-	-	-	-	-	-	-	-	-	-	2	-
Vascular lesions of nervous system	55	-	-	-	-	-	-	-	2	3	6	13	31
Coronary disease, angina	108	-	-	-	-	-	-	-	2	5	25	32	44
Hypertension with heart disease	2	-	-	-	-	-	-	-	-	-	1	1	-
Other heart disease	29	-	-	-	-	-	-	-	2	1	3	3	20
Other circulating disease	29	-	-	-	-	-	-	-	1	2	4	9	13
Influenza	-	-	-	-	-	-	-	-	-	-	-	-	-
Pneumonia	31	-	1	-	-	-	-	-	2	1	1	2	24
Bronchitis	33	-	-	-	-	-	-	-	-	3	8	7	15
Other diseases of the respiratory system	1	-	-	-	-	-	-	-	-	-	-	1	-
Ulcer of stomach and duodenum	2	-	-	-	-	-	-	-	-	-	-	-	2
Gastritis, enteritis & diarrhoea	-	-	-	-	-	-	-	-	-	-	-	-	-
Nephritis and nephrosis	-	-	-	-	-	-	-	-	-	-	-	-	-
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	-	-	-	-
Pregnancy, Childbirth, abortion	1	-	-	-	-	-	1	-	-	-	-	-	-
Congenital malformations	9	7	1	-	-	-	1	-	-	-	-	-	-
Other defined and ill-defined diseases	41	5	-	-	-	-	-	1	2	2	5	8	18
Motor vehicle accidents	6	-	-	-	1	-	2	1	-	-	2	-	-
All other accidents	6	-	1	-	-	-	1	-	1	-	1	2	-
Suicide	1	-	-	-	-	-	-	-	-	-	1	-	-

DARTFORD BOROUGH

TABLE IVB - CAUSES OF DEATH ACCORDING TO AGE

BEXLEY HOSPITAL - Compiled locally
(Resident more than 6 months)

1964

	All ages	0 - 4	15 - 24	25 - 34	35 - 44	45 - 54	55 - 54	65 - 74	75 +	Main causes
All causes	140	-	-	1	4	7	18	42	68	
Tuberculosis, respiratory	-	-	-	-	-	-	-	-	-	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	
Syphilitic disease	-	-	-	-	-	-	-	-	-	
Diphtheria	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	
Measles	-	-	-	-	-	-	-	-	-	
Other infective and parasitic disease	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, stomach	3	-	-	-	-	-	1	1	1	11
Malignant neoplasm, lung bronchus	2	-	-	-	-	-	-	2	-	
Malignant neoplasm, breast	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, uterus	1	-	-	-	-	-	-	-	1	
Other malignant & lymphatic neoplasms	5	-	-	-	-	1	-	2	2	
Leukaemia, aleukaemia	-	-	-	-	-	-	-	-	-	
Diabetes	3	-	-	-	-	-	1	1	1	
Vascular lesions of nervous system	17	-	-	-	-	-	3	6	8	17
Coronary disease, angina	22	-	-	-	2	-	4	4	12	51
Hypertension with heart disease	3	-	-	-	-	-	-	1	2	
Other heart disease	16	-	-	-	2	-	-	2	12	
Other circulatory disease	10	-	-	-	-	2	-	4	4	45
Influenza	-	-	-	-	-	-	-	-	-	
Pneumonia	36	-	-	1	-	-	4	12	19	
Bronchitis	6	-	-	-	-	-	1	3	2	
Other diseases of the respiratory system	3	-	-	-	-	-	-	2	1	
Ulcer of stomach and duodenum	1	-	-	-	-	1	-	-	-	
Gastritis, enteritis & diarrhoea	1	-	-	-	-	-	1	-	-	
Nephritis and nephrosis	-	-	-	-	-	-	-	-	-	
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	
Pregnancy, childbirth, abortion	-	-	-	-	-	-	-	-	-	
Congenital malformations	1	-	-	-	-	-	-	-	1	
Other defined and ill-defined diseases	9	-	-	-	-	3	2	2	2	
Motor vehicle accidents	-	-	-	-	-	-	-	-	-	
All other accidents	1	-	-	-	-	-	1	-	-	
Suicide	-	-	-	-	-	-	-	-	-	
Homicide and operations of war	-	-	-	-	-	-	-	-	-	

DARTFORD BOROUGH

TABLE IVC - CAUSES OF DEATH ACCORDING TO AGE

TOWN - Compiled locally

1965

	All ages	Under 4 wks.	4 wks-11 mos.	1 - 2	2 - 4	5 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 +	Main causes
All causes	443	14	6	-	3	2	3	6	12	24	82	115	176	
Tuberculosis, respiratory	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	-	-	-	-	
Syphilitic disease	2	-	-	-	-	-	-	-	-	-	-	1	1	
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	-	-	-	-	
Meningococcal infection	-	-	-	-	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-	
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-	
Other infective and parasitic disease	-	-	-	-	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, stomach	10	-	-	-	-	-	-	-	-	-	2	5	3	81
Malignant neoplasm, lung, bronchus	21	-	-	-	-	-	-	1	-	6	11	3	-	
Malignant neoplasm, breast	6	-	-	-	-	-	-	-	1	4	1	-	-	
Malignant neoplasm, uterus	5	-	-	-	-	-	-	-	-	4	1	-	-	
Other malignant and lymphatic neoplasms	38	-	-	-	1	-	-	6	6	5	7	13	1	
Leukaemia, aleukia	1	-	-	-	-	-	-	-	-	-	-	-	-	
Diabetes	5	-	-	-	-	-	-	-	-	1	1	3	-	
Vascular lesions of nervous system	47	-	-	-	-	-	-	-	-	-	8	13	26	47
Coronary disease, angina	99	-	-	-	-	-	-	-	4	24	33	38	-	152
Hypertension with heart disease	4	-	-	-	-	-	-	-	-	1	2	1	-	
Other heart disease	36	-	-	-	-	-	1	-	4	4	9	18	-	
Other circulatory disease	13	-	-	-	-	-	-	1	1	2	2	7	-	
Influenza	-	-	-	-	-	-	-	-	-	-	-	-	-	75
Pneumonia	45	-	-	-	-	1	-	-	-	3	8	33	-	
Bronchitis	29	-	1	-	-	-	-	-	2	6	9	11	-	
Other diseases of the respiratory system	1	-	-	-	-	-	-	-	-	-	-	-	1	
Ulcer of stomach and duodenum	5	-	-	-	-	-	1	-	1	1	1	1	-	
Gastritis, enteritis & diarrhoea	4	-	2	-	-	-	-	-	1	-	-	-	1	
Nephritis & Nephrosis	4	-	-	-	-	1	1	-	-	1	-	-	1	
Hyperplasia of prostate	2	-	-	-	-	-	-	-	-	-	-	-	2	
Pregnancy, childbirth, abortion	-	-	-	-	-	-	-	-	-	-	-	-	-	
Congenital malformations	6	1	2	-	1	1	1	-	-	-	-	-	-	
Other defined and ill-defined diseases	44	13	1	-	2	-	1	-	2	7	10	8	-	
Motor vehicle accidents	5	-	-	-	-	-	-	3	-	1	-	-	1	
All other accidents	4	-	-	-	-	-	-	-	-	-	-	1	3	
Suicide	7	-	-	-	-	1	1	1	2	2	-	-	-	
Homicide and operations of war	-	-	-	-	-	-	-	-	-	-	-	-	-	

DARTFORD BOROUGH

TABLE IV D - CAUSES OF DEATH ACCORDING TO AGE

BEXLEY HOSPITAL - Compiled locally
(Resident more than 6 months)

1965

	All ages	0 - 14	15 - 24	25 - 34	35 - 44	45 - 54	55 - 64	65 - 74	75 +	Main causes
All causes	187	-	1	-	1	4	23	45	113	
Tuberculosis, respiratory	2	-	-	-	-	-	2	-	-	
Tuberculosis, other	-	-	-	-	-	-	-	-	-	
Syphilitic disease	-	-	-	-	-	-	-	-	-	
Diphtheria	-	-	-	-	-	-	-	-	-	
Whooping cough	-	-	-	-	-	-	-	-	-	
Meningococcal infections	-	-	-	-	-	-	-	-	-	
Acute poliomyelitis	-	-	-	-	-	-	-	-	-	
Measles	-	-	-	-	-	-	-	-	-	
Other infective and parasitic diseases	-	-	-	-	-	-	-	-	-	
Malignant neoplasm, stomach	-	-	-	-	-	-	-	-	-	} 12
Malignant neoplasm, lung, bronchus	3	-	-	-	-	-	1	1	1	
Malignant neoplasm, breast	3	-	-	-	-	1	1	-	1	
Malignant neoplasm, uterus	-	-	-	-	-	-	-	-	-	
Other malignant and lymphatic neoplasms	5	-	-	-	-	-	-	3	2	
Leukaemia, aleukaemia	1	-	-	-	-	-	1	-	-	} 16
Diabetes	6	-	-	-	-	-	1	3	2	
Vascular lesions of nervous system	16	-	-	-	-	1	5	5	5	
Coronary disease, angina	26	-	-	-	-	1	5	6	14	
Hypertension with heart disease	4	-	-	-	-	-	-	2	2	
Other heart disease	29	-	-	-	-	-	-	6	23	} 65
Other circulatory disease	6	-	-	-	-	1	-	-	5	
Influenza	-	-	-	-	-	-	-	-	-	
Pneumonia	59	-	1	-	-	-	6	10	42	
Bronchitis	12	-	-	-	-	-	-	2	10	
Other diseases of the respiratory system	2	-	-	-	-	-	-	1	1	} 73
Ulcer of stomach and duodenum	-	-	-	-	-	-	-	-	-	
Gastritis, enteritis & diarrhoea	-	-	-	-	-	-	-	-	-	
Nephritis, nephrosis	-	-	-	-	-	-	-	-	-	
Hyperplasia of prostate	-	-	-	-	-	-	-	-	-	
Pregnancy, childbirth, abortion	-	-	-	-	-	-	-	-	-	} 4
Congenital malformations	-	-	-	-	-	-	-	-	-	
Other defined and ill-defined diseases	12	-	-	-	1	-	1	6	4	
Motor vehicle accidents	-	-	-	-	-	-	-	-	-	} 1
All other accidents	1	-	-	-	-	-	-	-	-	
Suicide	-	-	-	-	-	-	-	-	-	
Homicide and other operations of war	-	-	-	-	-	-	-	-	-	

DARTFORD BOROUGH

TABLE VA - CAUSES OF DEATH AT AGES 75 YEARS AND OVER - 1964

		Town												
		Male							Female					
		Total persons	Total	75 - 79	80 - 84	85 - 89	90 - 94	95 +	Total	75 - 79	80 - 84	85 - 89	90 - 94	95 +
All causes		199	87	32	27	23	4	1	112	46	40	15	11	0
Mal. neopl. stomach	32	7	4	2	-	1	1	-	3	-	3	-	-	-
Mal. neopl. lung, bronchus		7	7	6	1	-	-	-	-	-	-	-	-	-
Mal. neopl. breast		4	-	-	-	-	-	-	4	3	1	-	-	-
Mal. neopl. uterus		-	-	-	-	-	-	-	-	-	-	-	-	-
Other mal. & lym. neopl.		13	7	1	4	1	1	-	6	5	1	-	-	-
Leukaemia, aleukaemia		1	1	1	-	-	-	-	-	-	-	-	-	-
Diabetes		1	1	1	-	-	-	-	-	-	-	-	-	-
Vasc. lesions of nerv.system	31	31	9	2	3	4	-	-	22	9	4	4	5	-
Coronary disease, angina	77	44	17	6	5	6	-	-	27	13	10	3	1	-
Other heart disease		20	8	2	3	2	1	-	12	4	4	3	1	-
Other circulatory disease		13	6	1	3	2	-	-	7	2	3	2	-	-
Pneumonia	39	24	12	4	4	3	1	-	12	4	4	1	3	-
Bronchitis		15	11	6	1	3	-	1	4	1	2	1	-	-
Ulcer of stomach & duodenum		2	1	1	-	-	-	-	1	-	1	-	-	-
Oth. def. & illdef. disease		18	4	-	3	1	-	-	14	5	7	1	1	-

Bexley Hospital

All causes	68	13	6	4	2	1	-	55	18	20	14	3	-
Mal. neopl. stomach	4 (1	-	-	-	-	-	-	1	1	-	-	-	-
Mal. neopl. uterus	(1	-	-	-	-	-	-	1	1	-	-	-	-
Other mal. & lym. neopl.	(2	-	-	-	-	-	-	2	1	-	1	-	-
Diabetes	1	-	-	-	-	-	-	1	-	1	-	-	-
Vasc. lesions of nerv.system	8	8	1	-	1	-	-	7	3	4	-	-	-
Coronary disease, angina	(12	3	2	1	-	-	-	9	4	2	3	-	-
Hypertension with heart disease	30 (2	1	-	-	-	1	-	1	1	-	-	-	-
Other heart disease	(12	4	2	1	1	-	-	8	-	4	2	2	-
Other circulatory disease	(4	2	1	-	1	-	-	2	1	1	-	-	-
Pneumonia	(19	2	1	1	-	-	-	17	3	6	7	1	-
Bronchitis	22 (2	-	-	-	-	-	-	2	1	1	-	-	-
Other diseases of the respiratory system	(1	-	-	-	-	-	-	1	1	-	-	-	-
Congenital malformation	1	-	-	-	-	-	-	1	-	-	1	-	-
Other def. & illdef. disease	2	-	-	-	-	-	-	2	1	1	-	-	-

DARTFORD BOROUGH

TABLE VB - CAUSES OF DEATH AT AGES 75 YEARS AND OVER - 1965

Main causes	Town													
	Total persons	Male						Female						
		Total	75-79	80-84	85-89	90-94	95+	Total	75-79	80-84	85-89	90-94	95+	
All causes	176	81	37	29	6	9	-	95	29	30	30	5	1	
Syphilitic disease	1	1	-	1	-	-	-	-	-	-	-	-	-	
Mal. neopl. stomach	(3	1	1	-	-	-	-	2	-	1	1	-	-	
Mal. neopl. lung, bronchus	20 { 3	3	1	2	-	-	-	-	-	-	-	-	-	
Mal. neopl. other	(13	7	6	-	-	1	-	6	3	1	1	-	-	
Leukaemia	(1	1	1	-	-	-	-	-	-	-	-	-	-	
Diabetes	3	-	-	-	-	-	-	3	-	3	-	-	-	
Vasc. lesions of nerv. system	26	26	8	4	2	1	1	18	6	6	4	2	-	
Coronary disease, angina	(38	15	7	5	1	2	-	23	11	4	7	-	1	
Hypertension with heart dis.	64 { 1	1	-	1	-	-	-	-	-	-	-	-	-	
Other heart disease	(18	9	4	2	1	2	-	9	2	2	4	1	-	
Other circulatory disease	(7	2	2	-	-	-	-	5	1	1	2	1	-	
Pneumonia	(33	15	3	8	2	2	-	18	4	6	8	-	-	
Bronchitis	45 { 11	8	3	3	1	1	-	3	1	2	-	-	-	
Other diseases of the respiratory system	(1	1	1	-	-	-	-	-	-	-	-	-	-	
Ulcer of stomach and duodenum	1	1	-	1	-	-	-	-	-	-	-	-	-	
Gastritis, enteritis & diarrhoea	1	-	-	-	-	-	-	1	-	-	1	-	-	
Nephritis and nephrosis	1	1	-	1	-	-	-	-	-	-	-	-	-	
Hyperplasia of prostate	2	2	1	1	-	-	-	-	-	-	-	-	-	
Other defined and illdef. dis.	8	4	2	2	-	-	-	4	1	2	-	1	-	
Motor vehicle accidents	1	-	-	-	-	-	-	1	-	-	1	-	-	
All other accidents	3	1	1	-	-	-	-	2	-	2	-	-	-	
Bexley Hospital														
All causes	113	39	17	13	7	2	-	74	15	33	20	6	-	
Mal. neopl. lung,bronchus	(1	1	1	-	-	-	-	-	-	-	-	-	-	
Mal. neopl. breast	4 { 1	-	-	-	-	-	-	1	-	-	-	1	-	
Other mal. & lym. neopl.	(2	2	1	1	-	-	-	-	-	-	-	-	-	
Diabetes	2	-	-	-	-	-	-	2	1	-	1	-	-	
Vasc.lesions of nerv.system	5	5	5	-	-	-	-	5	-	4	1	-	-	
Coronary disease,angina	(13	7	3	2	1	1	-	6	3	2	1	-	-	
Hypertension with heart dis.	45 { 2	-	-	-	-	-	-	2	-	1	1	-	-	
Other heart disease	(22	11	4	5	2	-	-	11	4	3	4	-	-	
Other circulatory disease	(8	2	2	-	-	-	-	6	-	4	1	1	-	
Pneumonia	(42	9	4	1	3	1	-	33	4	16	10	3	-	
Bronchitis	52 { 9	7	2	4	1	-	-	2	1	1	-	-	-	
Other diseases of the respiratory system	(1	-	-	-	-	-	-	1	1	-	-	-	-	
Oth. def. & illdef.disease	4	-	-	-	-	-	-	4	1	1	1	1	-	
All other accidents	1	-	-	-	-	-	-	1	-	1	-	-	-	

DARTFORD BOROUGH

TABLE VI - DEATHS BY QUARTER AND PLACE 1964 and 1965

From 1958 onwards only the deaths of persons who have been in Bexley Hospital for over six months are assigned to Dartford. To avoid distortion, hospital deaths are deducted from the Borough deaths each quarter to give the number of Town deaths.

	1st qr.		2nd qr.		3rd qr.		4th qr.		Year	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
Total deaths assigned to Dartford Borough by Registrar General.	172	185	147	145	136	142	134	158	589	630
Bexley hospital deaths	36	59	39	42	36	44	29	42	140	187
∴ Town deaths	136	126	108	103	100	98	105	116	449	443

Number of deaths	1st qr.	2nd qr.	3rd qr.	4th qr.	Year
Dartford Town 1961	131	111	95	115	452
1962	122	121	87	98	428
1963	138	82	99	112	431
1964	136	108	100	105	449
1965	126	103	98	116	443

Crude quarterly death rates -

Dartford Town 1961	11.5	9.8	8.4	10.1	9.9
(Pop. of Dartford 1962 less about 2000)	10.9	10.8	7.8	8.8	9.6
1963	12.4	7.4	8.9	10.0	9.7
1964	12.2	9.7	9.0	9.4	10.1
1965	11.3	9.2	8.8	10.4	9.9
England & Wales 1961	15.6	10.9	9.5	11.9	12.0
1962	15.5	11.1	9.4	11.9	11.9
1963	17.0	11.0	9.6	11.2	12.2
1964	13.2	10.8	9.5	11.6	11.3
1965	13.3	10.9	9.9	11.9	11.5

Town deaths at home, in hospital and elsewhere.

1964									
All ages	M	F	M	F	M	F	M	F	Year
Home	17	17	18	13	14	12	14	17	122
Hospital	49	50	42	35	41	31	31	43	322
Elsewhere	2	1	-	-	1	1	-	-	5
	58	68	60	48	56	44	45	60	449

Aged 75+

Home	10	9	5	5	6	8	4	10	57
Hospital	18	24	15	17	16	16	13	23	152
Elsewhere	-	-	-	-	-	-	-	-	-
	28	33	20	22	22	24	17	33	199

Deaths by place as % of all deaths.

1964									
All ages	M	F	M	F	M	F	M	F	Year
Home	25%	25%	30%	27%	25%	27%	31%	28%	27%
Hospital	72%	73%	70%	73%	73%	70%	69%	72%	72%
Elsewhere	3%	2%	-	-	1%	2%	-	-	1%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

Aged 75+

Home	36%	27%	25%	23%	23%	27%	73%	30%	29%
Hospital	64%	73%	75%	77%	77%	73%	77%	70%	71%
Elsewhere	-	-	-	-	-	-	-	-	-
	100%	100%	100%	100%	100%	100%	100%	100%	100%

DARTFORD BOROUGH

TABLE VI - DEATHS BY QUARTER AND PLACE 1964 and 1965 (continued)

Town deaths at home, in hospital and elsewhere

1965										
		1st qr.		2nd qr.		3rd qr.		4th qr.		Year
		M	F	M	F	M	F	M	F	
All ages										
Home		20	19	14	15	10	14	17	10	119
Hospital		47	38	38	34	32	41	47	41	318
Elsewhere		1	1	2	-	-	1	-	1	6
		68	58	54	49	42	56	64	52	443
Aged 75+										
Home		8	8	6	7	5	3	5	4	46
Hospital		13	21	10	15	13	17	15	22	126
Elsewhere		-	-	-	-	-	-	-	1	1
		21	29	16	22	18	20	20	27	173

Deaths by places as % of all deaths.

All ages									
Home	30%	33%	26%	30%	24%	25%	27%	19%	27%
Hospital	69%	65%	70%	70%	76%	73%	73%	79%	72%
Elsewhere	1%	2%	4%	-	-	2%	-	2%	1%
	100%	100%	100%	100%	100%	100%	100%	100%	100%
Aged 75+									
Home	38%	28%	37%	32%	28%	15%	25%	15%	26%
Hospital	62%	72%	63%	68%	72%	85%	75%	81%	73%
Elsewhere	-	-	-	-	-	-	-	4	1%
	100%	100%	100%	100%	100%	100%	100%	100%	100%

Deaths in hospital as % of all deaths.

	Dartford Town		Dartford R.D.		Northfleet U.D.	
	All ages	75+	All ages	75+	All ages	75+
1964	72%	71%	65%	66%	55%	48%
1965	72%	73%	63%	58%	47%	46%
1966					51%	43%

Deaths at ages of 65 and over as % of deaths at all ages.

	Dartford Town		Dartford R.D.		Northfleet U.D.		England & Wales	
Aged	65-74	75+	65-74	75+	65-74	75+	65-74	75+
1964	25%	44%	24%	45%	26%	36%	25%	42%
1965	26%	40%	23%	45%	28%	39%	26%	43%
1966			24%	43%	26%	38%		

DARTFORD BOROUGH

TABLE VIIA - MAIN CAUSES OF DEATH BY MONTH AND QUARTER - 1964

(Compiled locally)

(a) TOWN

Month registered	All causes	Main causes	Other causes	Circ. disease	Cancer Lung	Cancer Other	Vasc.Les. C.N.S.	Resp. disease
<u>Aged under 75</u>								
January	25	21	4	7	5	8	-	1
February	28	21	7	8	2	2	2	7
March	22	20	2	7	1	6	3	3
1st. qtr.	75	62	13	22	8	16	5	11
April	22	18	4	10	1	2	1	4
May	20	15	5	11	-	1	1	2
June	24	17	7	9	2	2	3	1
2nd. qtr.	66	50	16	30	3	5	5	7
July	16	13	3	6	1	4	2	-
August	21	15	6	6	-	3	4	2
September	17	15	2	6	2	3	3	1
3rd. qtr.	54	43	11	18	3	10	9	3
October	23	18	5	10	4	-	2	2
November	16	13	3	4	4	3	-	2
December	16	14	2	7	-	3	3	1
4th qtr.	55	45	10	21	8	6	5	5
Year	250	200	50	91	22	37	24	26
<u>Aged over 75</u>								
January	25	23	2	6	1	5	6	5
February	16	14	2	6	-	3	-	5
March	20	18	2	10	-	4	2	2
1st qtr.	61	55	6	22	1	12	8	12
April	17	16	1	5	2	1	2	6
May	7	6	1	-	2	-	2	2
June	18	15	3	7	-	1	5	2
2nd qtr.	42	37	5	12	4	2	9	10
July	15	13	2	4	-	1	5	3
August	16	14	2	7	-	3	2	2
September	15	14	1	8	-	3	2	1
3rd qtr.	46	41	5	19	-	7	9	6
October	17	17	-	11	2	1	1	2
November	13	12	1	3	-	2	2	5
December	20	17	3	10	-	1	2	4
4th qtr.	50	46	4	24	2	4	5	11
Year	199	179	20	77	7	25	31	39
<u>All ages</u>								
January	50	44	6	13	6	13	6	6
February	44	35	9	14	2	5	2	12
March	12	38	4	17	1	10	5	5
1st qtr.	136	117	19	44	9	28	13	23
April	39	34	5	15	3	3	3	10
May	27	21	6	11	2	1	3	4
June	42	32	10	16	2	3	8	3
2nd qtr.	108	87	21	42	7	7	14	17
July	31	26	5	10	1	5	7	3
August	37	29	8	13	-	6	6	4
September	32	29	3	14	2	6	5	2
3rd qtr.	100	84	16	37	3	17	18	9
October	40	35	5	21	6	1	3	4
November	29	25	4	7	4	5	2	7
December	36	31	5	17	-	4	5	5
4th qtr.	105	91	14	45	10	10	10	16
Year	449	379	70	168	29	62	55	65

DARTFORD BOROUGH

TABLE VII B - MAIN CAUSES OF DEATH BY MONTH AND QUARTER - 1965

(Compiled locally)

(a) TOWN

Month registered	All causes	Main causes	Other causes	Circ. disease	Cancer Lung	Cancer Other	Vasc.les. C.N.S.	Resp. disease
<u>Aged under 75</u>								
January	25	19	6	8	1	3	2	5
February	23	20	3	8	2	4	1	5
March	25	17	8	4	2	3	3	5
1st qtr.	73	56	17	20	5	10	6	15
April	22	19	3	9	1	4	-	5
May	18	18	-	8	3	4	2	1
June	25	14	11	6	4	2	2	-
2nd qtr.	65	51	14	23	8	10	4	6
July	21	15	6	7	-	5	3	-
August	12	12	-	8	1	2	1	-
September	28	19	9	8	2	4	4	1
3rd qtr.	61	46	15	23	3	11	8	1
October	24	19	5	7	1	6	3	2
November	19	11	8	4	1	2	1	3
December	25	18	7	11	-	4	-	3
4th qtr.	68	48	20	22	2	12	4	8
Year	267	201	66	88	18	43	22	30
<u>Aged over 75</u>								
January	20	18	2	8	-	-	3	7
February	17	15	2	6	-	-	3	6
March	16	14	2	6	1	-	-	7
1st qtr.	53	47	6	20	1	-	6	20
April	12	11	1	3	-	3	3	2
May	10	9	1	3	1	1	-	4
June	16	15	1	10	-	-	2	3
2nd qtr.	38	35	3	16	1	4	5	9
July	13	13	-	6	-	4	1	2
August	13	13	-	4	-	3	4	2
September	11	10	1	4	1	3	2	-
3rd qtr.	37	36	1	14	1	10	7	4
October	16	11	5	5	-	-	2	4
November	13	12	1	3	-	3	1	5
December	19	14	5	6	-	-	5	3
4th qtr.	48	37	11	14	-	3	8	12
Year	176	155	21	64	3	17	26	45
<u>All ages</u>								
January	45	37	8	16	1	3	5	12
February	40	35	5	14	2	4	4	11
March	41	31	10	10	3	3	3	12
1st qtr.	126	103	23	40	6	10	12	35
April	34	30	4	12	1	7	3	7
May	28	27	1	11	4	5	2	5
June	41	29	12	16	4	2	4	3
2nd qtr.	103	86	17	39	9	14	9	15
July	34	28	6	13	-	9	4	2
August	25	25	-	12	1	5	5	2
September	39	29	10	12	3	7	6	1
3rd qtr.	98	82	16	37	4	21	15	5
October	40	30	10	12	1	6	5	6
November	32	23	9	7	1	5	2	8
December	44	32	12	17	-	4	5	6
4th qtr.	116	85	31	36	2	15	12	20
Year	443	356	87	152	21	60	48	75

DARTFORD BOROUGH

TABLE VIIC - MAIN CAUSES OF DEATH BY MONTH AND QUARTER - 1964

(Compiled locally)

(b) BEXLEY HOSPITAL

Month registered	All causes	Main causes	Other causes	Circ. disease	Cancer Lung	Cancer Other	Vasc.les. C.N.S.	Resp. disease
<u>Aged under 75</u>								
January	11	11	-	3	-	3	-	5
February	2	1	1	-	-	-	-	1
March	5	5	-	2	-	-	2	1
1st qtr.	18	17	1	5	-	3	2	7
April	7	6	1	3	-	-	-	3
May	7	5	2	2	-	-	-	3
June	5	4	1	2	-	-	2	-
2nd qtr.	19	15	4	7	-	-	2	6
July	11	9	2	5	1	1	1	1
August	2	-	2	-	-	-	-	-
September	5	5	-	2	-	-	-	3
3rd qtr.	18	14	4	7	1	1	1	4
October	5	4	1	-	-	-	-	4
November	4	4	-	-	1	1	1	1
December	8	6	2	2	-	-	3	1
4th qtr.	17	14	3	2	1	1	4	6
Year	72	60	12	21	2	5	9	23
<u>Aged over 75</u>								
January	5	5	-	2	-	-	-	3
February	8	7	1	3	-	-	-	4
March	5	5	-	2	-	-	1	2
1st qtr.	18	17	1	7	-	-	1	9
April	6	5	1	3	-	-	2	-
May	7	7	-	4	-	-	2	1
June	7	6	1	4	-	1	1	-
2nd qtr.	20	18	2	11	-	1	5	1
July	7	7	-	4	-	-	-	3
August	4	4	-	-	-	2	1	1
September	7	7	-	3	-	1	-	3
3rd qtr.	18	18	-	7	-	3	1	7
October	4	4	-	2	-	-	-	2
November	4	4	-	2	-	-	1	1
December	4	3	1	1	-	-	-	2
4th qtr.	12	11	1	5	-	-	1	5
Year	68	64	4	30	-	4	8	22
<u>All ages</u>								
January	16	16	-	5	-	3	-	8
February	10	8	2	3	-	-	-	5
March	10	10	-	4	-	-	3	3
1st qtr.	36	34	2	12	-	3	3	16
April	13	11	2	6	-	-	2	3
May	14	12	2	6	-	-	2	4
June	12	10	2	6	-	1	3	-
2nd qtr.	39	33	6	18	-	1	7	7
July	18	16	2	9	1	1	1	4
August	6	4	2	-	-	2	1	1
September	12	12	-	5	-	1	-	6
3rd qtr.	36	32	4	14	1	4	2	11
October	9	8	1	2	-	-	-	6
November	8	8	-	2	1	1	2	2
December	12	9	3	3	-	-	3	3
4th qtr.	29	25	4	7	1	1	5	11
Year	140	124	16	51	2	9	17	45

DARTFORD BOROUGH

TABLE VIID - MAIN CAUSES OF DEATH BY MONTH AND QUARTER - 1965

(Compiled locally)

(b) Bexley Hospital

Month registered	All causes	Main causes	Other causes	Circ. disease	Cancer Lung	Cancer Other	Vasc.les. C.N.S.	Resp. disease
<u>Aged under 75</u>								
January	11	9	2	3	-	3	-	4
February	11	9	2	3	1	2	1	1
March	7	7	-	5	-	-	-	2
1st qtr.	29	25	4	11	1	5	1	7
April	5	5	-	1	-	-	2	2
May	8	7	1	2	-	-	3	2
June	7	5	2	1	-	-	2	2
2nd qtr.	20	17	3	4	-	-	7	6
July	8	6	2	3	-	-	2	1
August	4	3	1	1	-	-	-	2
September	5	4	1	2	-	-	1	1
3rd qtr.	17	13	4	6	-	-	3	4
October	3	2	1	-	1	1	-	-
November	2	1	1	-	-	-	-	1
December	3	2	1	-	-	-	-	2
4th qtr.	8	5	3	-	1	1	-	3
Year	74	60	14	21	2	6	11	20
<u>Aged over 75</u>								
January	12	9	3	3	-	1	-	5
February	7	6	1	3	-	-	-	3
March	11	10	1	3	-	-	1	6
1st qtr.	30	25	5	9	-	1	1	14
April	8	8	-	3	-	1	1	3
May	6	6	-	3	-	-	-	3
June	8	8	-	6	-	-	1	1
2nd qtr.	22	22	-	12	-	1	2	7
July	9	9	-	5	-	-	-	4
August	8	8	-	2	-	1	-	5
September	10	10	-	7	-	-	-	3
3rd qtr.	27	27	-	14	-	1	-	12
October	4	3	1	-	-	-	-	3
November	11	10	1	4	1	-	-	5
December	19	19	-	5	-	-	2	12
4th qtr.	34	32	2	9	1	-	2	20
Year	113	106	7	44	1	3	5	53
<u>All ages</u>								
January	24	19	5	6	-	4	-	9
February	17	14	3	6	1	2	1	4
March	18	17	1	8	-	-	1	8
1st qtr.	59	50	9	20	1	6	2	21
April	13	13	-	4	-	1	3	5
May	14	13	1	5	-	-	3	5
June	15	13	2	7	-	-	3	3
2nd qtr.	42	39	3	16	-	1	9	13
July	17	15	2	8	-	-	2	5
August	12	11	1	3	-	1	-	7
September	15	14	1	9	-	-	1	4
3rd qtr.	44	40	4	20	-	1	3	16
October	7	5	2	-	1	1	-	3
November	13	11	2	4	1	-	-	6
December	22	21	1	5	-	-	2	14
4th qtr.	42	37	5	9	2	1	2	23
Year	187	166	21	65	3	9	16	73

DARTFORD BOROUGH

TABLE VIII - MAIN CAUSES OF DEATH (continued) - BY AGE

	All causes	Main causes	Other causes	(440-468) Circulatory diseases	(140-205) Cancer	(330-334) Vasc.les. C.N.S.	(470-527) Resp. diseases
England and Wales							
1963	572,868	477,021	95,847	213,522	102,416	80,340	80,743
%	100%	83%	17%	37%	18%	14%	14%
1964	534,737	441,816	92,921	198,192	104,699	73,965	64,960
%	100%	83%	17%	37%	20%	14%	12%
1965	549,379	457,845	91,534	206,180	106,338	78,149	67,178
%	100%	83%	17%	38%	19%	14%	12%

Town (compiled locally)

1963	431	353	78	152	77	59	65
%	100%	82%	18%	35%	18%	14%	15%
1964	449	379	70	169	87	55	68
%	100%	84%	16%	38%	19%	12%	15%
1965	443	356	87	152	81	48	75
%	100%	80%	20%	34%	18%	11%	17%

As percentage of all causes
Town 1964

Aged 0-74

1st qtr.	100%	82%	18%	28%	32%	7%	15%
2nd qtr.	100%	76%	24%	46%	12%	8%	10%
3rd qtr.	100%	79%	21%	33%	24%	16%	6%
4th qtr.	100%	81%	19%	38%	25%	9%	9%
	100%	80%	20%	36%	24%	10%	10%

Aged 75+

1st qtr.	100%	90%	10%	36%	21%	13%	20%
2nd qtr.	100%	88%	12%	29%	14%	21%	24%
3rd qtr.	100%	89%	11%	41%	16%	19%	13%
4th qtr.	100%	92%	8%	48%	10%	10%	22%
	100%	90%	10%	39%	16%	15%	20%

All ages

1st qtr.	100%	86%	14%	33%	26%	10%	17%
2nd qtr.	100%	80%	19%	39%	13%	13%	16%
3rd qtr.	100%	84%	16%	37%	18%	18%	11%
4th qtr.	100%	87%	13%	43%	18%	10%	16%
	100%	84%	16%	38%	20%	12%	14%

Distribution of deaths from each main cause between two age groups
Town 1964

Aged 0-74 years

1st qtr.	55%	53%	68%	50%	65%	38%	48%
2nd qtr.	61%	57%	76%	71%	57%	36%	41%
3rd qtr.	54%	51%	69%	49%	61%	50%	45%
4th qtr.	51%	49%	71%	47%	73%	50%	30%
	55%	53%	71%	54%	65%	44%	40%

Aged 75+

1st qtr.	45%	47%	32%	49%	36%	62%	52%
2nd qtr.	39%	43%	24%	29%	43%	64%	59%
3rd qtr.	46%	49%	31%	51%	39%	50%	55%
4th qtr.	47%	51%	29%	53%	27%	50%	70%
	45%	47%	29%	46%	35%	56%	60%

DARTFORD BOROUGH

TABLE VIII - MAIN CAUSES OF DEATH (continued) - BY AGE

As percentage of all causes Town 1965							
	All causes	Main causes	Other causes	(440-468) Circulatory diseases	(140-205) Cancer	(330-334) Vasc.les. C.N.S.	(470-527) Resp. diseases
Aged 0-74							
1st qtr.	100%	77%	23%	27%	20%	8%	21%
2nd qtr.	100%	78%	22%	35%	28%	6%	9%
3rd qtr.	100%	75%	25%	38%	23%	13%	2%
4th qtr.	100%	71%	29%	32%	21%	6%	12%
	100%	75%	25%	33%	23%	8%	11%
Aged 75+							
1st qtr.	100%	89%	11%	38%	2%	11%	38%
2nd qtr.	100%	92%	8%	42%	13%	13%	24%
3rd qtr.	100%	97%	3%	38%	30%	19%	11%
4th qtr.	100%	77%	23%	29%	6%	17%	25%
	100%	88%	12%	36%	11%	15%	26%
All ages							
1st qtr.	100%	82%	18%	32%	13%	10%	28%
2nd qtr.	100%	84%	17%	38%	22%	9%	15%
3rd qtr.	100%	84%	16%	38%	26%	15%	5%
4th qtr.	100%	73%	27%	31%	15%	10%	17%
	100%	80%	20%	34%	18%	11%	17%

Distribution of deaths from each main cause between two age groups

Town 1965

Aged 0-74							
1st qtr.	58%	54%	74%	50%	94%	50%	43%
2nd qtr.	63%	59%	82%	59%	78%	45%	40%
3rd qtr.	62%	56%	94%	62%	56%	53%	20%
4th qtr.	59%	56%	64%	61%	82%	33%	40%
	60%	56%	76%	58%	75%	46%	40%
Aged 75+							
1st qtr.	42%	46%	26%	50%	6%	50%	57%
2nd qtr.	37%	41%	18%	41%	22%	56%	60%
3rd qtr.	38%	44%	6%	38%	44%	47%	80%
4th qtr.	41%	44%	35%	39%	18%	67%	60%
	40%	44%	24%	42%	25%	54%	60%

CORONARY DISEASE - DARTFORD

TABLE IX.

Year	Town deaths	Bexley Hospital deaths	Borough deaths (Local)	Borough deaths (R.G.)	Town population	Borough population	Comp. factor	Town ^x crude death rate	R.G. crude death rate	Borough adjusted death rate	Eng. and Wales death rate	London death rate
1958	76	15	91	91	41140	43140	0.76	1.84	2.11	1.60	1.86	1.84
1959	73	19	92	93	41940	43940	0.85	1.74	2.13	1.82	1.87	1.89
1960	70	10	80	84	42950	44950	0.86	1.63	1.88	1.61	2.01	2.02
1961	75	20	95	99	43460	45460	0.86	1.73	2.18	1.87	2.07	2.05
1962	67	21	88	95	44180	46180	0.78	1.51	2.06	1.61	2.20	2.26
1963	100	15	115	116	44460	46460	0.85	2.25	2.50	2.12	2.29	2.36
1964	108	22	130	128	44420	46420	0.92	2.45	2.76	2.53	2.24	2.13
1965	99	26	125	126	44700	46700	0.84	2.21	2.70	2.26	2.38	2.27**
1958-65	668	148	816	832	347250	363250	0.84	1.92	2.29	1.92	2.12	2.10

The influence of chance on a rate of 1.92 in a population of 363250 is such that it offers a probability of 1 in 20 of taking the rate beyond 2.07 and 1 in 100 of taking the rate beyond 2.10 (Nomogram Rosenbaum B.M.J. 19 Jan 63).

LUNG CANCER - DARTFORD

Year	Town deaths	Bexley Hospital deaths	Borough deaths (Local)	Borough deaths (R.G.)	Town population	Borough population	Comp. factor	Town ^x crude death rate	R.G. crude death rate	Borough adjusted death rate	Eng. and Wales death rate	London death rate
1958	13	0	13	14	41140	43140	0.76	0.32	0.32	0.24	0.44	0.64
1959	25	1	26	25	41940	43940	0.85	0.60	0.57	0.49	0.46	0.64
1960	27	2	29	29	42950	44950	0.86	0.63	0.65	0.56	0.48	0.70
1961	20	3	23	25	43460	45460	0.86	0.46	0.55	0.47	0.49	0.67
1962	21	1	22	23	44180	46180	0.78	0.48	0.50	0.39	0.51	0.68
1963	20	3	23	24	44460	46460	0.85	0.45	0.52	0.45	0.52	0.70
1964	29	2	31	31	44420	46420	0.92	0.65	0.67	0.62	0.54	0.74
1965	21	3	24	23	44700	46700	0.84	0.47	0.49	0.41	0.55	0.70**
1958-65	176	15	191	194	347250	363250	0.84	0.51	0.56	0.47	0.50	0.68

The influence of chance on a rate of 0.47 in a population of 363250 is such that it offers a probability of 1 in 20 of taking the rate beyond 0.54 and 1 in 100 of taking the rate beyond 0.56.

^x This cannot be adjusted by C.F. as the latter applies to the whole Borough which includes Bexley Mental Hospital. ^{**} Greater London.

TABLE X. DEATHS FROM CORONARY DISEASE BY QUARTERS

Ages	Dartford Town					Bexley Hospital				
	0-74		75+		Total	0-74		75+		Total
	M	F	M	F		M	F	M	F	
1962-1st qtr.	6	-	1	3	10	1	1	2	3	7
2nd "	9	-	2	5	16	-	1	1	3	5
3rd "	13	2	2	3	20	2	3	1	-	6
4th "	7	3	9	2	21	1	1	-	1	3
Year	35	5	14	13	67	4	6	4	7	21
1963-1st qtr.	11	5	6	10	32	1	4	-	2	7
2nd "	13	2	4	9	28	1	1	-	1	3
3rd "	5	3	5	8	21	1	1	-	-	2
4th "	7	2	5	5	19	1	-	-	2	3
Year	36	12	20	32	100	4	6	-	5	15
1964-1st qtr.	7	7	6	9	29	3	-	1	1	5
2nd "	16	7	1	3	27	2	2	1	5	10
3rd "	10	3	6	6	25	3	-	-	3	6
4th "	9	5	4	9	27	-	-	1	-	1
Year	42	22	17	27	108	8	2	3	9	22
1965-1st qtr.	5	5	8	5	23	5	2	1	2	10
2nd "	9	5	4	5	23	1	-	2	-	3
3rd "	10	6	2	7	25	2	-	3	3	8
4th "	16	2	2	7	27	-	1	2	2	5
Year	40	18	16	24	98	8	3	8	7	26

TABLE XI. DEATHS OF INFANTS UNDER ONE YEAR OF AGE

Age	Cause	1964			1965		
		I.C.D.	M	F	I.C.D.	M	F
Under 1 day	Congenital malformation	759.3	1	1	758.6	-	1
		757.3	1	-			
	Immaturity	776	-	1	776	-	2
		769	-	1	774	1	-
	Atelectasis & immaturity	762.5	-	1	762.5	-	1
					761.0	-	1
	Birth injury				760.0	1	2
					760.5	-	2
1 to 6 days	Congenital malformation	754.1	1	-	759	-	1
		754.5	-	1			
		754.7	-	1			
	Hernia of abdominal cavity				560.4	-	1
		774	1	-			
	Asphyxia	762	1	-			
	Meningitis				340.3	1	-
7 to 27 days	Birth injury				761	-	1
	Congenital malformation	754.5	1	-	751	-	1
					760.0	1	-
28 to 364 days	Congenital malformation	754.7	-	1	754.5	-	1
		E924	1	-			
	Accidental suffocation	491	-	1			
	Bronchopneumonia						
	Tracheobronchitis				500	1	-
	Meningitis by pneumococcus				340.1	1	-
	Gastro-enteritis				571.0	1	1
			7	8		7	15

DARTFORD BOROUGH

TABLE XII - INJURY

(a) ACCIDENTS ON THE ROAD

Casualties (not necessarily Borough residents) on local roads (Chief Constable's analysis).

Local Authority	Total injury accidents		Killed		Seriously injured		Slightly injured		Total	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
Dartford M.B.	336	305	9	6	115	93	311	302	435	401
Northfleet U.D.	130	133	3	2	55	42	140	124	198	168
Swanscombe U.D.	81	60	1	4	23	40	92	54	116	98
Dartford R.D.	329	332	18	15	145	115	344	332	507	462

Deaths of Borough residents not necessarily on Borough roads.

1964

Place of accident

2 years F	Ran from behind stationary van and was struck by car.	Outside home.
16 years M	Sidecar passenger of motor cycle combination/motor car.	Lewisham
33 years F	Motor car/Bridge.	M2 motorway
61 years M	Pedestrian/motor car.	On the A2 Dartford
62 years M	Bicycle/motor car.	Blenheim Road, Dartford

Road accident not involving motor vehicle

71 years M	Pedal cyclist collided with kerb.	Dartford
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1965

39 years M	Van/lorry.	?
43 years F	Struck by car while crossing road behind stationary lorry.	Near her home in Dartford.
61 years M	Head-on collision with motor car.	Greenwich.
86 years F	Pedestrian/motor vehicle	West Hill near her home

Not on public highway

41 years M	Participating in 3-wheel race and colliding with safety bank.	Brands Hatch.
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International classification of injuries

Age	External cause of injury	Nature of injuries	Age	External cause of injury	Nature of injuries
1964			1965		
2	E 812	N 803	39	E 816.0	N 803
16	E 815.4	N 996.8	43	E 812	N 803
33	E 823.4	N 803	61	E 815.4	N 803
61	E 812	N 803	86	E 812	N 805
62	E 813	N 803			
71	E 843	N 805	41	E 835	N 805

E 812 = Motor vehicle traffic accident to pedestrian.

N 803 = Fracture of skull.

DARTFORD BOROUGH

TABLE XII - INJURY (continued)

(b) ACCIDENTS IN THE HOME

Persons receiving in-patient treatment at the Dartford Group of Hospitals:

	Falls		Burns & Scalds		Poisoning		Other		Total	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
0-4	4	1	2	1	4	1	-	1	10	4
5-64	1	1	1	5	1	-	1	-	4	6
65+	4*	6*	-	-	-	-	-	-	4	6
	9	8	3	6	5	1	1	1	18	16

Length of stay in hospital in weeks

	Under 1 week	1-	2-	3-	4-	8-	12-	13-	Cases
1964	10	5	-	-	-	1	2	-	18
1965	7	3	1	-	3	1	-	1	16

* Deaths in above admissions.

1964	82 years	F	Myocardial infarction. Coronary atheroma.
	81 years	F	Bronchopneumonia. Parkinson's disease.
1965	73 years	F	Cerebral abscess. Long-stay hospital.
			Death transferred out to Greenwich.

Deaths from accidents in the home:

Year	Age	Sex			
1964	10/52	M	Asphyxia by polythene sheet of cot	E 925.0	N 991
	24	M	Electrocution by old hair dryer	E 914.0	N 992
	44	F	Extensive burns. Fish fryer on fire	E 916.6	N 946
	61	M	Fractured ribs & pelvis from fall	E 900	N 808
	69	F	Ruptured spleen. Fall near home	E 903	N 865
	64	M	Asphyxia. Impacted food. Long-stay hospital	E 921.7	N 933
1965	71	F	Sub-dural haematoma-fall in garden	E 903	N 854
	79	M	Fractured pelvis due to fall from window.		
			Long-stay hospital (allocated to town deaths)	E 902.7	N 808
	81	F	Fractured femur. Fall. Long-stay hospital	E 903.7	N 821
	81	F	Carbon monoxide poisoning.	E 890	N 968
	86	F	Fractured femur. Fall. Long-stay hospital	E 903.7	N 821
			(Death transferred out)		

England & Wales (includes residential institutions)

	Under 15		Over 15		All ages	
	1964	1965	1964	1965	1964	1965
Poisoning	69	50	1410	1333	1479	1383
Falls	75	68	3901	3854	3976	3922
Burns & Scalds	187	203	580	548	767	751
Others	545	534	393	427	938	961
Total	876	855	6284	6162	7160	7017

DARTFORD BOROUGH

TABLE XII - INJURY (continued)

(c) ACCIDENTS AT WORK - NIL

(d) OTHER ACCIDENTS

1964	69	F	Fall near home) These accidents are included in Tables above.
	71	M	Collision with kerb riding pedal cycle	
1965	71	F	Fall in garden	

(e) SUICIDE

1964	64	F	Drowning	E 975.8	N 990
1965	21	M	Train injuries	E 979.8	N 996.8
	33	F	CO poisoning	E 972.0	N 698
	44	M	CO poisoning	E 972.0	N 968
	52	M	CO poisoning	E 972.0	N 968
	53	F	Salicylate poisoning	E 970.0	N 972
	58	F	Barbiturate poisoning	E 970.0	N 971
	58	M	Salicylate poisoning	E 970.0	N 972

(f) HOMICIDE - NIL

TABLE XIII - STILLBIRTHS

I.C.D. Y No.	Cause	Dartford Borough			Dartford R.D.			Borough and R.D. 1964-65	% of all Stillbirths	
		1964	1965	Total	1964	1965	Total		Borough and R.D.	Eng. and Wales
30	Chr.dis. in mother	1	-	1	-	-	-	1	1%	3%
32.2	Haemorrhage & prem.									
36.2	separation placenta	1	2	3	2	**1+2	5	8	10%	12%
32.3-4	Toxaemias of preg.		1*+1	2	3	4	7	9	12%	12%
34.1	Difficult labour + disproportion	-	-	-	-	-	-	-	-	2%
34.2	malposition	-	-	-	1	1*+2	4	4	5%	3%
36.0	Cord conditions	1	1	2	2	2	4	6	8%	8%
37	Birth injuries	2	-	2	-	-	-	2	3%	2%
38.0	Anencephalus	-	1	1	3	1	4	5	6%	11%
38.1-3	Other malform.N.S.	1	1	2	-	-	-	2	3%	6%
39.2	Erythroblastosis	-	-	-	2	1	3	3	4%	5%
39.4	Maceration	1*+1	1	3	2+1**	1	4	7	9%	6%
		8	8	16	16	15	31	47	61%	70%
34.6	Difficult labour. No mention of under- lying cause	1	-	1	-	-	-	1	1%	
36.1	Placenta praevia	1	-	1	1	-	1	2	3%	
36.4	Prem.sep.placenta	-	1*+1	2	-	-	-	2	3%	
36.5	Placenta infarct	-	-	-	1*+1	1	3	3	4%	
36.6	Other abnormality placenta and cord	-	2	2	1	1	2	4	5%	
38.5	Malformation of									
38.7	other system etc.	-	1	1	2	-	2	3	4%	
39.5	Other ill-def.cause	3	1*+2	6	1	3	4	10	13%	
39.6	Cause unspecified	-	1*+2	3	1	1	2	5	6%	
		5	11	16	8	6	14	30	39%	30%
		8	8	16	16	15	31	47	61%	70%
		13	19	32	24	21	45	77	100%	100%

* denotes at home, ** 1964 ambulance, 1965 nursing home. Remainder in hospital.

DARTFORD BOROUGH

TABLE XIV - PREVALENCE OF INFECTIOUS DISEASES (other than tuberculosis)

1964	All ages	Under 1	1-4	5-9	10-14	15-24	25-44	45-64	65+
rsentery	2	-	-	1	-	-	-	1	-
rysipelas	1	-	-	-	-	-	-	1	-
ood poisoning	2	-	-	-	-	-	1	1	-
asles	287	10	145	128	2	2	-	-	-
neumonia	3	-	-	1	-	1	1	-	-
erperal pyrexia*	59	-	-	-	-	23	34	-	-
arlet Fever	34	-	12	18	1	3	-	-	-
hooping cough	39	4	19	15	1	-	-	-	-
Totals	<u>427</u>	<u>14</u>	<u>176</u>	<u>163</u>	<u>4</u>	<u>29</u>	<u>36</u>	<u>3</u>	<u>-</u>
1965									
rsentery **	36	1	-	-	-	-	4	12	19
ood poisoning	9	-	2	-	-	1	2	3	1
eningococcal infection	1	1	-	-	-	-	-	-	-
asles	563	24	305	229	4	1	-	-	-
phthalmia neonatorum	1	1	-	-	-	-	-	-	-
erperal pyrexia	47	-	-	-	-	20	27	-	-
arlet fever	11	1	3	4	3	-	-	-	-
hooping cough	4	1	1	2	-	-	-	-	-
	<u>672</u>	<u>29</u>	<u>311</u>	<u>235</u>	<u>7</u>	<u>22</u>	<u>33</u>	<u>15</u>	<u>20</u>

* All cases were in-patients of the maternity wards of the Dartford Group of hospitals. In 1965 three of these cases were residents of Dartford Borough.

** 35 cases were infections with sh.sonnei in the Mental Hospital.

The following communicable diseases were reported from schools:-

	1964	1965
Chickenpox	312	185
Conjunctivitis	1	3
Enteritis	1	-
Gastric 'Flu	1	3
Glandular Fever	-	1
German measles	24	10
Impetigo	4	1
Influenza	15	29
Mumps	286	6
Scarlet Fever	36	16
Whooping cough	13	10

MEASLES

	St.Albans		Town		Brent		Highfield		Priory		Heath		Total Borough	
	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965	1964	1965
January	-	2	-	4	-	1	-	12	1	12	-	26	1	57
February	-	-	-	3	-	1	2	5	3	13	1	16	6	38
March	-	3	1	9	-	28	4	11	4	140	10	39	19	230
April	-	2	4	4	3	14	6	19	7	21	10	14	30	74
May	-	6	1	6	-	19	5	12	5	7	28	6	39	56
June	1	4	3	4	8	15	8	14	5	11	7	24	32	72
July	20	1	2	-	61	2	8	2	11	6	6	4	108	15
August	5	3	1	1	13	8	2	1	9	-	-	2	30	15
September	-	1	-	-	-	-	-	1	1	-	-	1	1	3
October	-	-	-	-	-	-	-	-	-	-	1	-	1	-
November	-	-	1	-	1	-	2	-	5	-	-	3	9	3
December	1	-	2	-	1	-	2	-	3	-	2	-	11	-
	<u>27</u>	<u>22</u>	<u>15</u>	<u>31</u>	<u>87</u>	<u>88</u>	<u>39</u>	<u>77</u>	<u>54</u>	<u>210</u>	<u>65</u>	<u>135</u>	<u>287</u>	<u>563</u>

DARTFORD BOROUGH

Table XIV (continued)

MEASLES (continued)

Biennial Cycle

	November	December	January	February	March	April	Total
1950-51	138	288	161	58	44	20	709
1951-52	-	-	-	-	-	-	-
1952-53	154	238	255	77	88	17	829
1953-54	-	-	-	-	-	-	-
1954-55	-	-	6	43	284	473	806
1955-56	-	-	-	-	-	1	1
1956-57	-	-	12	25	107	303	447
1957-58	-	-	-	-	1	5	6
1958-59	20	7	20	47	105	175	374
1959-60	8	-	-	-	-	-	8
1960-61	207	206	149	81	117	46	806
1961-62	1	-	1	-	-	-	2
1962-63	1	11	10	33	147	135	337
1963-64	1	-	1	6	19	31	58
1964-65	9	11	57	38	230	74	419
1965-66	3	-	1	4	19	32	59

SCARLET FEVER AND WHOOPING COUGH

1964	St. Albans		Town		Brent		High-field		Priory		Heath		Borough	
	SF	WC	SF	WC	SF	WC	SF	WC	SF	WC	SF	WC	SF	WC
Qtrs														
1st	-	-	2	1	-	4	1	-	7	-	-	3	10	8
2nd	-	1	1	-	4	2	2	3	5	7	-	3	12	16
3rd	-	2	-	4	-	-	-	1	-	2	-	5	-	14
4th	-	-	-	-	-	-	-	-	11	1	1	-	12	1
	-	3	3	5	4	6	3	4	23	10	1	11	34	39
1965														
Qtrs	SF	WC	SF	WC	SF	WC	SF	WC	SF	WC	SF	WC	SF	WC
1st	1	-	1	-	1	-	1	-	1	-	-	-	5	-
2nd	-	-	-	-	1	-	1	-	-	-	-	1	2	1
3rd	-	-	-	-	-	-	1	-	-	-	2	-	3	-
4th	-	-	-	1	1	-	-	1	-	1	-	-	1	3
	1	-	1	1	3	-	3	1	1	1	2	1	11	4

DARTFORD BOROUGH

TABLE XV - TUBERCULOSIS, 1964 and 1965

(a) Respiratory

NOTIFICATIONS IN RECENT YEARS

Year	Town	Bexley Hospital	Total	Year	Town	Bexley Hospital	Total
1956	21	22	43	1961	20	5	25
1957	32	3	35	1962	17	9	26
1958	22	5	27	1963	10	-	10
1959	15	9	24	1964	12	2	14
1960	9	3	12	1965	8	8	16

NOTIFICATIONS BY AGE AND SEX

	Total	0-14	15-19	20-24	25-34	35-44	45-54	55-64	65+
1964									
Males	8	-	1	1	-	2	1	2	1
Females	6	1	2	1	1	-	-	-	1
	14	1	3	2	1	2	1	2	2
1965									
Males	13	-	-	-	1	5	4	1	2
Females	3	-	-	2	-	-	1	-	-
	16	-	-	2	1	5	5	1	2

Of the above notifications the following were infectious:-

Town	1964	Sex	Age	Occupation
		F	2½	Infant
		F	30	Housewife (immigrant)
		M	38	Fitter
		M	56	Shot blaster
		F	76	Housewife
	1965	M	36	Building supervisor
		M	38	Clerk
		F	53	Immigrant
		M	53	Chef
Bexley Hospital			?	

NUMBER OF CASES OF RESPIRATORY TUBERCULOSIS ON THE REGISTER ON DECEMBER 31st

	Male	Female	Persons		Male	Female	Persons
1956	297	209	506	1961	255	197	452
1957	293	227	520	1962	266	191	457
1958	295	221	516	1963	250	187	437
1959	283	223	506	1964	228	177	405
1960	250	201	451	1965	219	170	389

CHANGES IN THE REGISTER IN 1964 and 1965

Additions:	1964	1965	Removals:	1964	1965
New notifications	14	16	Lost sight of	1	4
Moved into district	9	10	Left district	28	12
Returned to district	-	-	Not tuberculosis	1	-
	23	26	Recovered	16	24
			Deaths	9	2
				55	42

DARTFORD BOROUGH

TABLE XV - TUBERCULOSIS, 1964 and 1965 (continued)

(a) Respiratory (continued)

DEATHS OF PERSONS SUFFERING FROM TUBERCULOSIS

Persons removed from the tuberculosis register following death:

		Cause of death				Year died	Infection when diagnosed
Year born	Sex	Year notified	Underlying	Contributory			
1885	M	1958	Myocardial infarction	-		1964	Yes
1893	M	1955	Coronary disease, angina	-		1962	Yes
1893	M	1958	Carcinoma of lung	-		1964	Yes
1897	M	1959	a. Cerebral haemorrhage b. Arteriosclerosis	-		1964	Yes
1908	M	1945	a. Coronary occlusion b. Atheroma	Pulmonary tuberculosis		1964	?
1910	M	1952	a. Cor. Pulmonale b. Chronic bronchitis	Pulmonary tuberculosis		1964	Yes
1920	F	1920	a. Intra cerebral haemorrhage b. Hypertension	-		1964	Yes
1891	F	1964	Pulmonary tuberculosis (at death found to be resident elsewhere)	Brown atrophy of heart		1964	?
1934	F	1964 *	Pneumonia	Healed pulmonary tuberculosis		1964	?
Removed from register 1965							
1901	M	1955 *	a. Congestive cardiac failure b. Chr. pulmonary tuberculosis and ch. syphilis	-		1965	Yes
1902	M	1965 *	Pulmonary tuberculosis (notified at time of death)	Hiatus hernia		1965	Yes

*Bexley mental hospital.

No death from respiratory tuberculosis occurred in 1964 or 1965 which referred to a person not on our register of tuberculosis.

DARTFORD BOROUGH

TABLE XV - TUBERCULOSIS

(a) Respiratory (continued)

MASS X-RAY

1964	Over 45 service				Routine service				Total		Persons
	Industry	Public	Industry	Public*	Industry	Public*	Industry	Public*	M	F	
No. X-rayed	939	4	940	266	825	654	2	219	2706	1143	3849
Active tuberculosis	-	-	-	-	-	-	-	-	-	-	-
Incidence %	-	-	-	-	-	-	-	-	-	-	-
NOT PREVIOUSLY X-RAYED (included in above)											
No. X-rayed	100	-	137	129	159	258	1	34	397	421	818
Active tuberculosis	-	-	-	-	-	-	-	-	-	-	-
Incidence %	-	-	-	-	-	-	-	-	-	-	-
1965											
No. X-rayed	630	2	1541	686	461	87	2	211	2634	986	3620
Active tuberculosis	-	-	-	-	-	-	-	-	-	-	-
Incidence %	-	-	-	-	-	-	-	-	-	-	-
NOT PREVIOUSLY X-RAYED (included in above)											
No. X-rayed	18	1	320	349	163	35	1	23	502	408	910
Active tuberculosis	-	-	-	-	-	-	-	-	-	-	-
Incidence %	-	-	-	-	-	-	-	-	-	-	-

* colleges, hospitals, etc.
only.

NON-TUBERCULOSIS CASES FOUND

	1964		1965	
	Male	Female	Male	Female
Carcinoma of bronchus	3	-	3	-
Pneumonitis	4	-	4	1
Bronchiectasis	-	-	1	-
Diaphragm hernia	2	-	1	-
Substernal goitre	-	-	1	1
Pulmonary fibrosis	1	-	-	-
Pleural thickening	1	1	1	-
Abdominal adhesions	1	-	-	-
Callous formation after cough fracture	1	-	-	-
Cypho-scoliosis	-	1	-	-
Myopathy	-	-	-	1
	13	2	11	3
Cardio vascular lesions	3	2	7	4
Abnormalities requiring no action	81	7	61	5

DARTFORD BOROUGH

TABLE XV -

TUBERCULOSIS

(a) Respiratory (continued)

DARTFORD CHEST CLINIC: Dartford Borough provides about one quarter of the population served by the clinic.

	1961	1962	1963	1964	1965
Total persons attending for first time	1,516	1,715	1,528	1,317	1,444
(a) Referred by doctors	1,081	1,217	1,056	870	722
(b) Contacts	356	448	425	412	696
(c) From other sources, e.g. transfers	79	50	47	35	26
New cases					
(a) Active pulmonary tuberculosis	50	57	50	41	23
(b) Non-pulmonary tuberculosis	14	10	10	11	9
(c) Bronchial neoplasm	23	39	34	32	34
Found to be sputum positive					
(a) New cases	21	25	27	18	14
(b) Old cases	9	24	16	16	12
Total attendances	7,197	7,328	6,948	6,181	6,133
Total individuals attending	3,342	3,576	3,469	3,078	3,033

In addition to the above some 500 conditions other than tuberculosis or cancer were found each year.

TUBERCULOSIS (b) NON-RESPIRATORY

NOTIFICATIONS IN RECENT YEARS

1957	2	1960	2	1963	7
1958	6	1961	8	1964	2
1959	2	1962	2	1965	2

The notifications of 1964 were: one female aged 26 with tuberculosis of endometrium and one male aged 29 with urogenital tuberculosis and infected urine.

The notifications of 1965 were: one female aged 25 with tuberculosis of uterus and one male aged 40 with tuberculosis of the testis.

NUMBER OF CASES OF NON-PULMONARY TUBERCULOSIS ON REGISTER AT DECEMBER 31ST.

	Male	Female	Persons		Male	Female	Persons
1956	27	33	60	1961	27	35	62
1957	25	33	58	1962	25	34	59
1958	28	33	61	1963	26	34	60
1959	25	30	55	1964	25	37	62
1960	25	31	56	1965	25	36	61

CHANGES IN THE REGISTER

Additions:	1964	1965	Removals:	1964	1965
New notifications	2	2	Recovered	1	3
Inward transfers	2	1	Lost sight of	1	-
			Death	-	1

The removal by death related to a boy aged 15 months who died from tuberculous meningitis. He came from a crowded household. He was notified in 1963 and died in 1963.

DARTFORD BOROUGH

TABLE XVI - VACCINATIONS

Virus Diseases

(a) POLIOMYELITIS

For the years 1957 to 1960 the figures provided by County Hall for vaccination against poliomyelitis for each year gave the number of persons born in each of stated years who had received vaccination in each year under review. When we had figures in this detail we could assemble them in a way which demonstrated the size and pattern of the immunity barrier ready to oppose the spread of poliomyelitis. For 1961 the figures we received related to persons in age groups each of several years of birth. For 1962 similar groupings were also used but the groupings of years of birth were slightly different. For 1963 the groupings were the same as 1962 and we were able to manage the figures concisely enough for example to give the following in our 1963 report:-

Percentage of young population vaccinated 1959-1963

Born	Estimated population	No. had 2nd dose	% of population	*No. had 3rd dose	% of population
1957-1963	5104	3389	67%	3858	76%
1943-1956	8578	1602	19%	6233	73%
1943-1963	13682	4991	36%	10091	74%

* For footnote see 1963 report, it explains why more 3rd doses than 2nd doses.

The raw figures for this current report were provided to us in yet a different form. For 1964 they were in age groups which differed from those of 1963 and the figures for 1965 not only differed in their age groups from those of 1964 but in addition were limited to age groups under sixteen years of age.

The above difficulties explain some of the short comings in the presentation of the figures that follow:-

Completed courses of primary vaccination (3 doses or equivalent) Dartford Borough

Vaccinated		Born in year	Vaccinated					Est. pop. 1965	% immune Dec. 31 1965 Dartford M.B.	England and Wales
Previous years	1961		1962	1963	1964	1965	1962-65			
		1965	-	-	-	237	237	876	27%	?
		1964	-	-	138	636	774	852	91%	65%
		1963	-	111	512	43	666	752	88%	71%
		1962	81	513	53	20	667	773	86%	71%
		1961	544	82	20		646+	807	80% +	?
10516	2347	(Previous years & a few others	2109	189	647	591*	3536-			

* born 1949-61

DARTFORD BOROUGH

TABLE XVI - VACCINATIONS (continued)

(a) POLIOMYELITIS (continued)

Completed course of 4 doses				Dartford M.B.	
1961		1962		1963	
Age group	Completed 4 doses	Age group	Completed 4 doses	Age group	Completed 4 doses
School children aged under 12 years	2472	Born 1943 to 1956	623*	Aged between 5 and 12 years	404*
1964		1965			
Age group	Completed 4 doses	Age group	Completed 4 doses		
Born 1964	-	Born 1965	1		
" 1963	12	" 1964	-		
" 1962	-	" 1963	-		
" 1961	-	" 1962	-		
" 1949-60	519*	" 1958-61	452*)		
" 1933-48	2	" 1949-57	66*)	518	

*When dead vaccine had been previously given by injection 4th doses by injection or by oral route were given around the year of school entry. Most of these latter doses must therefore have been given at ages from 5 to 8. By 1965 the practice followed was to give three oral doses in infancy followed by a fourth oral dose on starting school.

Percentage of children aged 5 - 11 who have had 4 doses

(a) Year	(b) Birth years	(c) Est. Pop.	(d) Number with 4th dose	School leavers (e) (f) Birth Pop. years	School leavers (g) (f) immune 2472/3981= 62% (f)	(h) Col. (d) cumula- tive.	(i) Col. (g) cumula- tive.	(j) No. with 4th dose at end of year (h)-(i)	(k) % with 4th dose at end of year j/c x 100
1961	1950-56	3981	2472	1950 584	362	2472	362	2110	53%
1962	1951-57	4088	623	1951 549	340	3095	702	2393	59%
1963	1952-58	4207	404	1952 515	319	3499	1021	2478	59%
1964	1953-59	4381	519	1953 577	358	4018	1379	2639	60%
1965	1954-60	4528	452	1954 569	352	4470	1731	2739	61%

The above table contains assumptions and estimates the rough nature of which only justify figures to the nearest hundred. The figures are not so rounded off in order that the origin of certain figures can thereby be discerned.

TABLE XVI - VACCINATIONS (continued)

(b) SMALLPOX

NUMBERS VACCINATED and REVACCINATED by age at date of Vaccination

Year	<u>Vaccinated</u>					Total
	Under 1 year	1 year	2 - 4	5 - 15	15 or over	
1965	?	476	?	?	?	?
1964	?	377	?	?	?	?
1963	?	139	?	?	?	?
1962	562	81	183	639	908	2373
1961	500	38	13	13	6	570
1960	?	?	?	?	?	?
1959	433	38		14	9	494
1958	357	27		16	20	420

Year	<u>Revaccinated</u>					Total
	Under 1 year	1 year	2 - 4	5 - 15	15 or over	
1965	?	?	?	1) Age 5-7	?	?
1964	?	?	?	-) years	?	?
1963	?	?	?	1) "	?	?
1962	-	10	137	916	2065	3128
1961	-	-	-	-	6	6
1960	?	?	?	?	?	?
1959	-			4	11	15
1958	-	1		10	29	40

INFANT VACCINATION RATE: Up to the end of 1961 most infants who were vaccinated were vaccinated in the first year of life but in 1962 more infants than in former years were vaccinated at a later age. In 1963 the second year of life was advocated as an age for vaccination. The percentage of the number of births in a year of those vaccinated while under one year of age in that year is used here as a vaccination rate up to 1962.

	No. of live births	No. vaccinated under 1 year	% of births of those vaccinated
1965	898	?	?
1964	865	?	?
1963	780	?	?
1962	789	562	72%
1961	824	500	61%

SECOND YEAR VACCINATION RATE: With practice changing to vaccination in the second year of life the County no longer record vaccinations at ages under 1 year, consequently the expedient rate is now the vaccinations done as a percentage of infants surviving to the age of one year.

	Infants aged 1 year approx.	Vaccinations done at age 12 - 23 months	% of those eligible vaccinated
1965	852	476	56%
1964	752	377	50%
1963	773	139	18%
1962	807	81	10%
1961	724	38	5%

SCHOOL CHILD IMMUNITY DECEMBER 1965: When records of vaccination and revaccination of all young age groups were available it was feasible to make an estimate of school child immunity. Records are now incomplete and this is no longer feasible. However, vaccination and revaccination of children of school age is now minimal and the immunity is mainly that from the vaccinations and revaccinations done in 1962 when smallpox was in the country. Our 1963 report estimated 1530 or 26% of those born 1949-58 to have this legacy in December 1963. 638 and 584 = 1222 left this age group by December, 1965 i.e. 26% 1222 = 318 left who were immune therefore 1530 - 318 = 1212 with immunity remained. The 5-14 population Dec. 1965 was 6169. Thus roughly 1212/6169 = 20% of school children had some immunity in December, 1965.

DARTFORD BOROUGH

TABLE XVI - VACCINATIONS (continued)

Bacterial Diseases

(c) DIPHTHERIA

NUMBER VACCINATED

Year	Age at 31st December in years	Primary inoculations done in the year	Reinforcing inoculations done in the year
1965	0 - 4	941	481
	5 - 9	6	440
	10 - 14	3	1
1964	0 - 4	695	434
	5 - 9	7	375
	10 - 14	1	3
1963	0 - 4	643	431
	5 - 9	4	332
	10 - 14	1	4
1962	0 - 4	665	390
	5 - 9	14	274
	10 - 14	3	3
1961	0 - 4	795	244
	5 - 9	71	395
	10 - 14	35	62
1960	0 - 4	794	139
	5 - 9	32	262
	10 - 14	5	17

PRIMARY VACCINATIONS

at age 0 - 4 years before December 31st, 1965 in children aged 0 - 10 years

Born	Age Dec. 31 1965	Vaccinated in year ending December 31st								Est. Pop.	% vaccinated at age 0 - 4 years
		1955-59	1960	1961	1962	1963	1964	1965	1955-65		
1965	0						-	417	417	876	48%
1964	1		not	born		-	315	488	803	852	94%
1963	2				-	295	351	23	669	752	89%
1962	3			-	318	334	21	7	680	773	88%
1961	4		-	376	326	9	7	6	724	807	90%
1960	5	-	332	331	13	3	1		680	724	94%
1959	6	142	385	41	4	2			574	689	83%
1958	7	466	16	24	4				510	668	76%
1957	8	514	19	23					556	691	80%
1956	9	482	12						494	618	80%
1955	10	445							445	569	78%
1955-65	0-10	2049	764	795	665	643	695	941	6552	8019	82%
		26%	9%	10%	8%	8%	9%	12%	82%		

DARTFORD BOROUGH

TABLE XVI - VACCINATIONS (continued)

Bacterial Diseases

(c) DIPHTHERIA (continued)

REINFORCING VACCINATIONS* by December 31st, 1965

Born	Age Dec. 31 1965	1955-59	1960	1961	1962	1963	1964	1965	1955-65	Est. popu- lation	% revaccin- ated by Dec. 65
1965	0							-	-	876	0%
1964	1		not born				-	32	32	852	4%
1963	2					-	25	322	347	752	46%
1962	3				-	18	292	77	387	773	50%
1961	4			-	20	302	77	50	449	807	56%
1960	5		-	9	268	75	40	147*	539	724	74%
1959	6	-	6	134	67	36	75*	147	465	689	67%
1958	7	-	70	65	35	66*	75	147	458	668	69%
1957	8	9	28	36	55*	66	75	-	269	691	39%
1956	9	18	35	79*	55	66	75	-	328	618	53%
1955	10	46	187	79	55	66	75	-	508	569	91%
1955/65	0-10	73	326	402	555	695	809	922	3782	8019	47%
0-10 age group % revaccinated		1%	4%	5%	7%	9%	10%	11%	47%		

*Average of age group of several years.

*Some of these revaccinations at school entry may be in children already enumerated at age 18-21 months.

(d) WHOOPING COUGH

NUMBER VACCINATED

Year	Age at 31st December in years	Primary inoculations done in the year	Reinforcing inoculations done in the year
1965	0 - 4	924	398
	5 - 7	1	96
	8 - 16	1	1
1964	0 - 4	682	?
	5 - 9	3	?
	10 - 14	-	?
1963	0 - 4	611	?
	5 - 9	2	?
	10 - 14	-	?
1962	0 - 4	647	?
	5 - 9	6	?
	10 - 14	1	?
1961	0 - 4	740	?
	5 - 9	37	?
	10 - 14	12	?
1960	0 - 4	759	?
	5 - 9	22	?
	10 - 14	1	?

DARTFORD BOROUGH

TABLE XVI - VACCINATIONS (continued)

Bacterial Diseases

(d) WHOOPING COUGH (continued)

PRIMARY VACCINATIONS

Year	Age Dec. 31 1965	Vaccinated in year ending December 31st									Est. Pop.	% vaccinate at age 0-4 years				
		1958	1959	1960	1961	1962	1963	1964	1965	1958-65						
1965	0	not born							405	405	876	46%				
1964	1								310	485	795	852	93%			
1963	2								287	345	23	655	752	87%		
1962	3								331	310	21	6	668	773	86%	
1961	4								370	299	9	6	5	689	807	86%
1960	5								332	308	12	3	-	655	724	86%
1959	6								292	367	31	3	2	695	689	* 101%
1958	7	229	281	32	17	2	aged 5+			561	668	84%				
1958-65	0-7	229	573	731	726	647	611	682	924	5123	6141	84%				
0-7 age group % vaccinated		4%	9%	12%	12%	11%	10%	11%	15%	84%						

* Illustrates the scope for error in our population estimate based on births but excluding migration.

REINFORCING VACCINATIONS. As since 1960 combined vaccine has been used for whooping cough, diphtheria and tetanus and reinforcing vaccinations at 18-21 months are done with the combined vaccine the number of reinforcing vaccinations at this age for whooping cough is similar to that for diphtheria.

(e) TETANUS

1965 is the first year for which we have figures for tetanus vaccination.

Age 31st December	Primary vaccinations done in 1965	Reinforcing vaccinations done in 1965
0 - 4 years	941	481
5 - 7 years	6	440
8 - 16 years	3	1

In view of the introduction of the combined vaccine in 1960 the numbers of primary vaccinations against tetanus in years 1960-64 can be assumed to be almost identical with those of diphtheria vaccination.

DARTFORD BOROUGH
TABLE XVI - VACCINATIONS (continued)
Bacterial Diseases
(f) TUBERCULOSIS

Children in close contact with patients suffering from tuberculosis are, if necessary, vaccinated with B.C.G. The following vaccinations were carried out at the Chest Clinic, Dartford:-

	Children under 15 years of age						
	1959	1960	1961	1962	1963	1964	1965
Dartford R.D.	160	139	131	184	119	120	131
Dartford Borough	133	126	126	129	101	93	126

Some persons attend other clinics and therefore, these figures are incomplete.

Vaccination of school children is carried out by the School Health Services. These children are skin tested and those who do not react are vaccinated. Those who do react are referred to the Chest Physician for further investigation. Figures are not available for the Rural District.

Total number of persons vaccinated with B.C.G. at Dartford Chest Clinic including residents elsewhere and hospital staff:-

1959	1960	1961	1962	1963	1964	1965
676	668	619	670	564	592	595

COMPARISON WITH OTHER AREAS

	Dartford M.B.	Dartford R.D.	Northfleet U.D.	Kent C.C.	England & Wales
POLIOMYELITIS					
Primary vaccination Born 1964 and vaccinated 1964 or 1965	91%	87%	80%	81% "eligible children"	65%
Reinforcing vaccination Born 1954-60 and had 4th dose by December 1965	61%	74%*	59%	71% "eligible children"	?
SMALLPOX					
Primary vaccination Aged 13-23 months vaccinated in 1965	56%	71%	65%	61% "eligible children"	33%
Revaccination School children revaccinated 1965 as % of school entrants	0%	0%	0%	?	3%
DIPHTHERIA					
Primary vaccination Born 1964 and vaccinated in 1964 or 1965	94%	87%	93%	66% "eligible children"	?
Reinforcing vaccination Born 1961 and reinforcing vaccination by 1965.	56%	75%*	56%	?	?
" % total number of 0-4 age group who have completed primary vacc. within last 5 years" by December, 1965.	Pop. 4060 Vacc. 3293 % = 81%	Pop. 5831 Vacc. 4472 % = 80%	Pop. 2367 Vacc. 1824 % = 77%	?	Pop. 4113000 Vacc. ? % = 56%

With the prevailing use of triple vaccine comparisons for whooping cough and tetanus vaccination can be assumed to be similar to the above.

* The population estimate does not include an estimate for the balance of migration and thus is an underestimate which makes above percentage an overestimate.

DARTFORD BOROUGH

APPENDIX I.

HOUSING

NEW DWELLINGS. The following were completed in recent years:-

	1960	1961	1962	1963	1964	1965
By Council enterprise	78	109	33	52	150	138
By private enterprise	175	82	144	78	108	33
	<u>253</u>	<u>191</u>	<u>177</u>	<u>130</u>	<u>258</u>	<u>171</u>
By Council enterprise -						
One bedroom	13	38	29	12	-	32
Two bedrooms	65	60	4	4	68	26
Three bedrooms	-	9	-	36	82	80
Four bedrooms	-	2	-	-	-	-
	<u>78</u>	<u>109</u>	<u>33</u>	<u>52</u>	<u>150</u>	<u>138</u>

APPLICANTS FOR COUNCIL HOUSES. Waiting list at end of December, 1960-1965

	1960	1961	1962	1963	1964	1965
	1276	1268	1180	1149	1194	1162

Priority on medical grounds. Recommendations were :

Tuberculosis					Other than tuberculosis				
Number of points given					Number of points given				
Total					Total				
Applications	0	1-5	6-10		Applications	0	1-5	6-10	
1964 (a)*	-	-	-	-	25	3	20	2	
(b)*	1	-	1	-	72	19	50	3	
1965 (a)*	-	-	-	-	42	8	33	1	
(b)*	1	-	1	-	64	13	49	2	

(a) = for transfer (b) = for rehousing

Rehoused or transferred					Rehoused or transferred				
1964 (a)	-	-	-	-	1964 (a)	13	2	11	-
(b)	-	-	-	-	(b)	40	10	30	-
1965 (a)	1	-	-	1	1965 (a)	9	1	8	-
(b)	1	-	1	-	(b)	20	1	19	-

UNFIT HOUSES

	1964	1965
Made fit by informal action	86	73
Made fit by statutory notice	47	27
Demolished by Council action	8	nil
Closed by statutory action	nil	nil
Families displaced	10	5

Houses demolished or closed:

1964	Nos. 107-119 Hythe Street (7 houses)	1965	Nos. 19-29 Overy Street
	130 Hythe Street (1 house)		(5 houses) bought by Council to be demolished later

STATUTORY OVERCROWDING: Known cases - 1964 nil 1965 one

IMPROVEMENT GRANTS. Discretionary 1964 £8017. 8. 1 Standard 1964 £2767. 0.11
1965 £5748.14. 5 1965 £1934.15. 3

CARAVANS. Site licences in force 31.12.64 - 3 No. of caravans permitted 31.12.64 -
31.12.65 - 3 31.12.65 -

DARTFORD BOROUGH

APPENDIX II.

WATER

GATHERING GROUND. The chalk below this district is part of the gathering ground for this part of Kent. All the permanent dwellings of Dartford Borough have the Metropolitan Water Board's water piped into them. Two hospitals and three factories have their own well supplies.

QUANTITY. The quantity of water at present is abundant.

QUALITY.

(a) Bacteriological

In the following the number of E.coli. type 1 per 100 ml. is used to summarize the information provided by samples.

	Number of samples		E.coli type 1 per 100 ml.	
	1964	1965	1964	1965
Dartford Metropolitan Water Board well(raw water)	249	205	0	0
West Hill Hospital (raw water)	10	10	0	0
Bexley Hospital (chlorinated in well)	4	3	0	0
J. & E. Hall Ltd.(2 wells) (raw water)	8	8	0	0
Dartford Paper Mills Ltd.(2 wells) (raw water)	4	4	0	0
London Paper Mills (raw water) No.3 well	0	1	-	0
No.2 well	4	7	0	0
No.1 well	4	17	0	0 in twelve, 1,3,3,7, & 90

(b) Chemical

General. The following number of part per million is used to summarize the information provided by samples

	Number of samples		Av.albuminoid ammonia		Natural fluoride as fluorine	
	1964	1965	1964	1965	1964	1965
Dartford Metropolitan Water Board well	4	4	0.02	0.04	0.15	0.15
London Paper Mills	0	2	-	0.06	-	?

Nitrates. With the feeding of newborn and premature babies in mind the water at West Hill Hospital was sampled periodically for estimation of nitrates.

No. of samples		Average nitrate nitrogen		Range	
1964	1965	1964	1965	1964	1965
8	3	11 p.p.m	9 p.p.m	10-12 p.p.m.	8-10 p.p.m.

SWIMMING BATHS

Bacteriological analysis of swimming bath water is done to ascertain the sterilizing ability of the chlorine dosage on the pollution introduced by bathers.

	No. of samples		E. coli type 1 per 100 ml.		Plate count			
	1964	1965	1964	1965	Ave. 1964	Range 1965	Ave. 1964	Range 1965
Burnham Road-Shallow end	9	10	0	0	6	0-50	0	0-0
Deep end	9	10	0	0	2	0-12	14	0-125
Dartford College of Physical Education - Shallow end	8	9	0	0	1	0-7	1	0-12
Deep end	8	9	0	0	2	0-13	1	0-4
Oakfield Lane C.P.School Inlet end	0	1	-	0	-	-	0	-
Outlet end	0	1	-	0	-	-	7	-

DARTFORD BOROUGH

APPENDIX III.

DRAINAGE

With the few exceptions mentioned below all the dwellings in the Borough are on main drainage, the sewage being led to the works of the West Kent Main Sewerage Board on the periphery of the Borough by the River Thames.

Work carried out on the instigation of the Council's Public Health Inspectors was as follows:-

		1964	1965
Drains	- cleared by service of notice	1	4
	cleared by department	445	424
	repaired	5	3
	reconstructed	-	-
	gully fenders repaired	1	1
	inspection chambers provided	-	1
	inspection chambers repaired	2	10
	vent shaft or air inlet repaired	1	1
Cesspools	- emptied	1	3
	repaired	-	-
	abolished	4	-
Drainage work	- drains tested by water	19	27
	drains tested by smoke, colour etc.	16	9
	visits for supervision etc.	226	100

Where main drainage was not in use the position in December, 1965 was:-

Domestic premises	- Cesspool (foul and sink waste)	38
	Cesspools for foul water only	1
	Cesspools for sink with earth or chemical closets	2
	Septic tanks	7
Factories	- with cesspools	4
	with septic tanks	4
	with chemical closets	4

Some of the cesspools are emptied by the Council, some are emptied by other arrangements, others are never emptied.

APPENDIX IV.

FOOD HYGIENE

FOOD PREPARATION. Food premises and inspections by the Council's Public Health Inspectors were:-

	Premises		Inspections	
	1964	1965	1964	1965
Bakehouses	6	6	20	19
Butchers	25	29	132	96
Cafes, restaurants, canteens etc.	63	64	140	153
Confectioners	47	40	91	63
Dairies	3	2	4	3
Fish fryers and fishmongers (incl. market stalls)	12	13	105	42
Greengrocers	29	29	86	60
Grocers	69	61	221	141
Ice-cream premises (incl. manufacturers)	93	91	66	26
Licensed premises (non-catering)	46	48	84	36
Slaughterhouses	1	1	64	66
Butchers stalls in markets	1	1	37	62
Grocers stalls in markets	1	1	44	70
Fishmongers stalls in markets	1	1	43	63

Of the premises registered as dairies, one only is used as such and this only on rare occasions. The figure for ice cream premises is the number of premises registered most of which are grocers or confectioners, the inspections of which are recorded under these headings.

DARTFORD BOROUGH

APPENDIX IV. (continued)

Registered premises. Section 16 of the Food and Drugs Act, 1955 requires certain premises to be registered. Those registered were:-

	1964	1965
Sausage making and cooked meats	32	31
Ice cream manufacture and sale	1	1
Ice cream storage and sale	110	90

Visits to these premises are included in the figures tabulated above.

In 1964 and 1965 as a result of the foregoing inspections, 29 and 49 notices were served and 28 and 44 notices were complied with. The following summarizes the defects remedied:-

	1964	1965
Premises and equipment cleansed, repaired or improved	20	51
Provision of facilities for first aid or cleanliness	14	21
Protection of food from risk of contamination	7	4
Repair or cleaning of sanitary accommodation	1	21
Miscellaneous	4	1

MILK. The Regulations require this Council to register (a) dairies not being dairy farms, (b) distributors. At 31st December, 1965, 2 dairies and 32 registered distributors were retailing milk in the Borough. All milk sold must be designated and regulations require dealers selling this milk to be licensed by this Council. The number of dealers' licences in force at the 31st December, 1965 were:-

Tuberculin tested	Designation no longer applicable
Untreated	1
Pasteurised	22
Sterilised	29

For possession of a licence, milk sold under these designations must comply with the prescribed tests. For the purpose of these tests the following samples were submitted to the County Analyst by the Council's Public Health Inspectors:

Designation	Prescribed test	1964	1965	
Tuberculin tested	Methylene blue	0	-	All
Untreated	Methylene blue	-	0	satisfied the
Pasteurised	Methylene blue and phosphatase	22	13	prescribed
Sterilised	Turbidity of filtrate by heat	4	4	tests.

ICE-CREAM. Ice-cream is also tested for cleanliness by the time it takes to bleach methylene blue. Anything shorter than 2½ hours (i.e. grades III and IV) means that the conditions of manufacture and handling require investigation. The results of samples submitted to the laboratory by the Council's Public Health Inspectors were as follows:-

Ice-cream from hot mix manufactured in the Borough and sold from soft ice-cream dispenser:-

	1964	1965
Grade 1	5 samples	6 samples
2	6 "	3 "
3	7 "	1 sample
4	nil	nil

Prepacked hot mix ice-cream manufactured outside the Borough:-

	1964	1965
Grade 1	3 samples	3 samples
2	nil	2 "
3	nil	1 sample
4	nil	nil

DARTFORD BOROUGH

APPENDIX IV (continued)

Soft ice-cream made outside and frozen at retailers' premises

	1964		1965	
	Grade 1	12 samples	3 samples	
	2	7 "	3 "	
	3	9 "	nil	
	4	12 "	nil	

MEAT. The following relate to carcasses inspected by the Council's Public Health Inspectors at the slaughterhouse of Bexley Hospital.

	Cattle		Cows		Calves		Pigs	
	excl.cows		1964	1965	1964	1965	1964	1965
Killed	10	1	7	7	44	40	901	1092
Inspected	10	1	7	7	44	40	901	1092

All diseases except tuberculosis and cysticercosis -

Whole carcasses rejected	None	None	none	none	none	3	1	1
Carcasses-parts of which were rejected	-	-	2	1	-	-	22	179
Percentage diseased	-	-	29%	14.3%	-	7.5%	2%	16.5%

Tuberculosis only -

Whole carcasses rejected	-	-	-	-	-	-	-	-
Carcasses-parts of which were rejected	-	-	-	-	-	-	29	12
Percentage diseased	-	-	-	-	-	-	3%	1.1%

Cysticercosis -

Carcasses found infested	-	-	-	-	-	-	-	-
--------------------------	---	---	---	---	---	---	---	---

SEIZURE OR SURRENDER OF UNSOUND FOOD.

The amount of unsound food surrendered was:-

	1964			1965		
	tons	cwts.	lbs.	tons	cwts.	lbs.
Fish	-	3	66	-	5	61
Meat, poultry etc.	-	6	267	1	9	96
Groceries - miscellaneous	-	-	31	-	8	-
Tinned food	19	8	99	-	11	70
Frozen food	-	7	104	-	10	38
Fresh fruit	-	-	48	-	-	38
	20	9	55	3	5	79

FOOD UNFIT FOR CONSUMPTION EXPOSED FOR SALE. Items of food the fitness of which was the subject of complaint to this office by customers were:-

	1964		1965	
	Number	confirmed	Number	confirmed
Tainted, "off" or old	2	2	4	3
Moulds	8	8	2	2
"Dirt" etc.	2	2	1	1
Insects or their larvae, etc.	3	3	6	6
-do- sampling	1	1		

APPENDIX IV. (continued)

Legal Proceedings

	Fines	Fees		Costs	
	£	£	d	£	d
1964.					
Insect excreta in walnut whip	15	4	4	-	-
Bacon with blow fly eggs and larvae	25	10	10	-	-
Steak and kidney with mould growths	25	10	10	-	-
Mouldy sliced bread	Case dismissed upon warranty plea				
Cake with mould growths	20	7	4	-	-
Smoking in food room-open food in room	4	4	4	-	-
Smoking in food room-open food in room	7	2	2	-	-
Ice-cream vehicle without hot water	3	-	-	-	-
No address on ice-cream vehicle	2	-	-	-	-
1965.					
Insects in pancake mixture	20	4	4	-	-
Rancid butter	25	5	5	-	-
No address on food stall	2	5	5	-	-
No address on ice-cream vehicle	2	3	3	-	-
No address on ice-cream vehicle	2	-	-	-	-
Smoking whilst handling lettuces	5	5	5	-	-
No soap and nailbrush on ice-cream vehicle	20	5	5	-	-
No soap and nailbrush on ice-cream vehicle	20	5	5	-	-
Unprotected meat carried on shoulder	3	5	5	-	-
Unprotected bacon carried on shoulder	5	3	0	-	-
Unprotected pork carried on shoulder	10	2	2	-	-
Unprotected pork carried on shoulder	10	2	2	-	-
Milk sold in dirty bottle	5	5	5	-	-

APPENDIX V.

FOOD CONTENT

SAMPLING. In 1964, 140 informal samples were obtained by the Council's public health inspectors and were sent for analysis. 18 samples were reported as inferior. In 1965, 2 formal and 129 informal samples were taken and 20 were reported as inferior.

CUSTOMERS' COMPLAINTS. In 1964, 12 and in 1965, 11 were related to recognisable items of foreign matter in food.

LEGAL PROCEEDINGS.

	Fines	Fees		Costs	
	£	£	s	£	s
1964					
Bread containing soiled dough	20	7	7	-	-
Malt loaf containing piece of tin	25	4	4	-	-
1965					
Apple pie containing wood	25	10	10	26	5
Bread containing soiled dough	30	10	10	-	-
Bread roll containing soiled dough	25	5	5	-	-
Bacon containing surgical dressing	15	3	3	-	-

DARTFORD BOROUGH

APPENDIX VI.

AIR HYGIENE

SMOKE CONTROL

DOMESTIC. By the end of 1965 smoke control orders were in operation for areas Nos. 1, 2, 3, 4 and 5, Temple Hill North, East and West, the details of the premises being:-

Areas (acres)	1010
Number of local authority dwellings	3057
Number of other dwellings	3102
Number of industrial and commercial premises	64
Number of other premises	35

INDUSTRIAL. Complaints attended to by the Council's Chief Public Health Inspector were mainly in 1965 and were as follows.

Acid smuts, remedied by addition of alkaline dust to flue gases.
Dark smoke, remedied by new steam raising plant.
Grit emission - circumstances exceptional.
Smoke from car breaking operations.

MEASUREMENTS. The monthly collections of deposit analysed by the County Analyst with the daily measurements of smoke and acidity made in this office were included in the readings for the whole Thameside area distributed by the Thameside Joint Committee for the Abatement of Atmospheric Pollution.

DUST FROM CEMENT WORKS

Standard deposit gauge readings. In spite of their limitations these gauges are the means by which the trend of dust nuisance has been followed by public health authorities in this area. The trend lines from 1954 to 1962 - when calculations were suspended for a review of the formula for assessing dust from cement works - are given in other reports and it is not expedient to repeat them here. Suffice to say that from 1958 to 1962 in figures for dust from cement works a rising trend was detectable.

As weather is influential in determining the amount of dust deposit in the gauges the percentage of dust from cement works as related to dust from other sources might be a guide to the trend of emissions from the works. The trend lines for this from 1959 to 1962 was markedly upward but they were not entirely reliable as dust from other sources is influenced by the fuels used in other industries and these have been subject to change.

In this appendix, instead of trend lines, histograms have been used for the years 1963, 1964 and 1965.

The percentage of dust from cement works to dust from other sources in the combined readings of the most affected gauges - Horns Cross, Northfleet and Swanscombe - is perhaps a concise guide if one remembers the above limitations. A downward trend is detectable.

AIR HYGIENE
DEPOSIT GAUGE READINGS

Tons per square mile

Month	Dissolved matter			Undissolved matter			Total solids			Dust from cement wks			Dust from other sources		
	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65
WHITE OAK															
Jan	15	8	6	7	6	4	22	14	10	8	3	2	14	11	8
Feb	10	7	6	16	9	7	26	16	13	6	4	4	20	12	9
Mch	6	7	8	7	9	7	12	16	15	1	4	0	11	12	15
Apl	7	6	7	6	10	15	13	16	22	4	3	0	9	13	22
May	6	7	3	7	10	14	13	17	17	3	2	0	10	15	17
June	6	5	6	6	5	6	12	10	12	3	2	3	9	8	9
July	5	3	6	4	8	10	9	11	16	2	1	2	7	10	14
Aug	6	5	3	5	7	5	11	12	9	1	3	2	10	9	7
Sept	8	4	10	4	5	5	12	10	15	4	3	0	8	7	15
Oct	6	8	5	3	22	5	10	30	10	1	0	4	9	30	6
Nov	6	7	8	3	6	7	9	13	15	0	3	4	9	10	11
Dec	8	6	5	4	4	5	12	10	10	3	3	0	9	7	10
BOW ARROW										36	31	21	125	144	143
Jan	29	18	10	9	13	7	38	32	17	28	18	5	10	14	12
Feb	12	17	14	7	17	15	19	34	29	12	14	13	7	20	16
Mch	-	18	16	-	22	13	-	40	30	-	13	12	-	27	18
Apl	20	13	21	21	13	16	41	26	37	30	5	15	11	21	22
May	11	16	7	9	19	6	20	35	13	10	14	2	10	21	11
June	14	18	13	15	17	19	29	35	32	18	11	11	11	24	21
July	14	7	15	22	14	14	36	21	29	30	4	9	6	17	20
Aug	12	10	15	12	20	13	24	30	28	12	11	10	12	19	18
Sept	19	10	10	37	23	11	56	33	21	33	9	1	23	24	20
Oct	9	17	21	7	19	20	16	36	41	8	16	23	8	20	18
Nov	12	15	26	6	10	19	18	25	46	5	12	25	13	13	21
Dec	17	15	9	13	13	9	30	28	18	18	14	2	12	14	16
DARTFORD CENTRAL										204+	141	128	123	234	213
Jan	19	14	9	8	11	10	27	25	19	14	12	3	13	23	16
Feb	15	13	10	17	13	12	32	27	22	15	9	8	17	18	14
Mch	8	15	11	6	13	9	14	28	21	4	9	6	10	19	15
Apl	18	9	14	15	10	12	33	19	26	22	3	8	11	16	16
May	13	12	5	5	12	7	18	24	12	7	7	0	11	17	12
June	12	14	12	6	9	8	17	23	20	11	5	8	6	18	12
July	10	5	11	11	11	8	21	16	19	15	2	4	6	14	15
Aug	10	9	12	10	8	8	20	17	20	7	6	5	13	11	15
Sept	10	8	7	15	14	8	25	22	15	16	10	2	9	12	13
Oct	7	13	17	6	10	8	13	23	25	6	8	15	7	15	10
Nov	8	12	16	6	8	12	14	20	28	3	9	13	11	11	15
Dec	11	12	7	9	9	7	20	22	13	9	8	0	11	14	13
JOYCE GREEN										129	88	72	125	188	166
Jan	-	17	9	-	15	5	-	32	14	-	17	5	-	15	9
Feb	-	19	9	-	18	5	-	35	14	-	20	6	-	15	8
Mch	9	17	14	15	17	7	24	34	21	0	12	12	24	22	9
Apl	11	10	17	9	11	17	20	21	34	10	5	2	10	16	32
May	-	14	5	-	17	5	-	32	10	-	8	2	-	24	8
June	12	14	10	13	13	7	25	27	17	9	7	6	14	20	11
July	13	7	10	19	12	9	33	19	20	15	3	6	18	16	14
Aug	15	9	8	12	10	6	27	19	13	8	7	6	19	12	7
Sept	17	10	7	11	13	10	28	23	17	19	10	1	9	13	16
Oct	10	22	20	11	14	37	21	36	57	10	10	14	11	26	43
Nov	16	14	22	20	9	18	36	24	41	9	10	14	25	14	27
Dec	14	6	7	11	7	6	26	13	13	16	5	0	10	8	13
										114	74		193	197	

AIR HYGIENE
DEPOSIT GAUGE READINGS
Tons per square mile

Month	Dissolved matter					Undissolved matter					Total solids					Dust from cement works					Dust from other sources				
	'63	'64	'65	'66	'67	'63	'64	'65	'66	'67	'63	'64	'65	'66	'67	'63	'64	'65	'66	'67	'63	'64	'65	'66	'67
WHITE OAK																									
Jan	15	8	6	7	7	4	6	7	16	9	33	14	10	8	3	5	3	2	14	11	8	11	12	9	8
Feb	10	7	6	7	7	7	9	7	16	7	36	16	13	6	4	4	4	4	20	12	9	12	12	9	9
Mar	6	7	6	7	7	7	9	7	16	7	36	16	13	6	4	4	4	4	20	12	9	12	12	9	9
Apr	7	6	7	7	7	10	10	12	10	10	32	16	13	12	12	3	2	0	13	10	12	12	12	12	12
May	6	7	7	7	7	10	10	12	10	10	32	16	13	12	12	3	2	0	13	10	12	12	12	12	12
June	6	7	7	7	7	10	10	12	10	10	32	16	13	12	12	3	2	0	13	10	12	12	12	12	12
July	5	7	7	7	7	10	10	12	10	10	32	16	13	12	12	3	2	0	13	10	12	12	12	12	12
Aug	6	7	7	7	7	10	10	12	10	10	32	16	13	12	12	3	2	0	13	10	12	12	12	12	12
Sept	8	4	10	4	4	2	2	2	4	4	10	10	12	12	12	4	0	0	8	7	9	7	12	9	9
Oct	6	8	2	8	2	2	2	2	2	2	30	10	10	10	10	4	0	0	9	10	9	10	11	9	9
Nov	6	7	8	7	3	7	6	7	3	6	12	12	12	12	12	3	0	0	9	10	9	10	11	9	9
Dec	6	6	2	4	4	2	4	2	4	2	10	10	10	10	10	3	0	0	9	7	9	10	10	9	9
BOW ARROW																									
Jan	29	18	10	9	13	7	38	32	17	32	17	32	32	17	32	32	18	32	144	144	144	144	144	144	144
Feb	12	17	14	7	17	12	19	32	32	32	32	32	32	32	32	32	18	32	144	144	144	144	144	144	144
Mar	-	18	16	-	22	13	19	40	30	30	30	30	30	30	30	30	18	32	144	144	144	144	144	144	144
Apr	20	13	21	21	12	16	41	26	37	37	37	37	37	37	37	37	18	32	144	144	144	144	144	144	144
May	11	16	7	9	19	6	20	35	35	35	35	35	35	35	35	35	18	32	144	144	144	144	144	144	144
June	14	18	12	12	17	19	39	35	35	35	35	35	35	35	35	35	18	32	144	144	144	144	144	144	144
July	14	7	12	22	14	14	36	31	29	29	31	36	36	36	36	36	18	32	144	144	144	144	144	144	144
Aug	12	10	12	12	20	13	24	30	28	28	30	36	36	36	36	36	18	32	144	144	144	144	144	144	144
Sept	19	10	10	37	23	11	26	33	31	31	33	33	33	33	33	33	18	32	144	144	144	144	144	144	144
Oct	9	17	21	7	19	20	18	36	41	41	41	41	41	41	41	41	18	32	144	144	144	144	144	144	144
Nov	12	12	26	6	10	19	18	22	46	46	46	46	46	46	46	46	18	32	144	144	144	144	144	144	144
Dec	17	12	9	12	13	9	30	28	18	18	18	18	18	18	18	18	18	32	144	144	144	144	144	144	144
DARTFORD CENTRAL																									
Jan	19	14	9	8	11	10	27	22	19	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Feb	12	13	10	17	12	12	20	27	22	19	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mar	8	12	11	6	12	9	14	28	21	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Apr	18	9	14	12	12	12	33	19	26	26	26	26	26	26	26	26	12	12	12	12	12	12	12	12	12
May	13	12	2	2	12	7	18	24	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	14	12	6	9	8	17	23	20	20	20	20	20	20	20	20	12	12	12	12	12	12	12	12	12
July	10	9	11	11	11	8	21	16	19	19	19	19	19	19	19	19	12	12	12	12	12	12	12	12	12
Aug	10	9	12	10	8	8	20	17	20	20	20	20	20	20	20	20	12	12	12	12	12	12	12	12	12
Sept	10	8	7	12	14	8	22	22	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Oct	7	12	17	6	10	8	13	22	22	22	22	22	22	22	22	22	12	12	12	12	12	12	12	12	12
Nov	8	12	16	6	12	12	14	20	26	26	26	26	26	26	26	26	12	12	12	12	12	12	12	12	12
Dec	11	12	7	9	9	7	20	22	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
JOYCE GREEN																									
Jan	-	17	9	-	12	-	32	14	-	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Feb	-	19	9	-	18	-	32	14	-	14	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Mar	9	17	14	12	17	7	24	21	21	21	21	21	21	21	21	21	12	12	12	12	12	12	12	12	12
Apr	11	10	17	9	11	17	20	21	21	21	21	21	21	21	21	21	12	12	12	12	12	12	12	12	12
May	-	14	2	-	17	2	32	10	-	10	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
June	12	14	10	12	12	7	22	27	17	17	17	17	17	17	17	17	12	12	12	12	12	12	12	12	12
July	12	7	10	12	12	9	23	19	20	20	20	20	20	20	20	20	12	12	12	12	12	12	12	12	12
Aug	12	9	8	12	10	6	27	19	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Sept	17	10	7	11	12	12	28	23	17	17	17	17	17	17	17	17	12	12	12	12	12	12	12	12	12
Oct	10	22	20	11	12	14	27	26	27	27	27	27	27	27	27	27	12	12	12	12	12	12	12	12	12
Nov	16	14	22	20	9	18	26	24	21	21	21	21	21	21	21	21	12	12	12	12	12	12	12	12	12
Dec	14	6	7	11	7	11	26	13	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
TOTAL																									
	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193	193

AIR HYGIENE (continued)

DEPOSIT GAUGE READINGS (continued)

Month	Dissolved matter			Undissolved matter			Total solids			Dust from cement wks			Dust from other sources		
	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65
Horns Cross															
	-	35	25		36	11	-	71	36	-	55	29	-	16	7
	34	33	35	30	22	1	64	55	36	60	39	34	4	16	2
	27	32	28	20	18	6	47	50	34	36	40	33	11	10	1
	24	35	38	15	30	84	39	66	122	33	48	51	6	18	71
	22	23	15	20	15	39	41	38	54	37	34	25	4	4	29
	23	24	22	22	11	27	45	35	49	38	26	34	7	9	15
	14	9	18	29	13	19	43	22	37	39	6	27	4	16	10
	17	16	12	15	65	15	32	81	27	21	58	20	11	23	7
	27	11	25	25	13	15	52	23	40	49	14	24	3	9	16
	18	34	11	23	38	26	41	72	37	32	43	16	9	29	21
	19	45	54	13	33	35	32	78	89	20	67	65	12	11	24
	29	44	27	31	24	14	60	68	42	54	66	18	6	2	24
										419+	496	376	77	163	227
Swanscombe															
	37	29	13	25	23	8	62	52	22	46	43	17	16	9	5
	21	26	18	24	22	21	45	47	39	36	30	28	9	17	11
	18	24	23	11	19	25	29	43	48	20	27	31	9	16	17
	19	16	31	17	15	38	36	31	69	27	16	38	9	15	31
	18	19	14	16	32	17	34	51	32	25	28	17	9	23	15
	19	27	-	17	16	-	36	43	68	27	23	18	9	20	50
	14	14	17	23	23	12	37	37	29	22	6	17	15	31	12
	17	12	22	12	18	26	29	30	48	19	18	27	10	12	21
	21	17	20	23	21	10	44	38	30	36	25	21	8	13	11
	19	32	20	15	25	16	34	58	36	28	43	24	6	15	12
	19	28	39	12	19	23	31	47	62	19	39	46	19	8	16
	24	31	26	22	20	12	46	51	38	41	36	26	5	15	12
										346	334	310	124	194	213
Northfleet															
	27	27	20	12	25	16	39	52	36	34	38	25	5	14	11
	18	23	17	27	27	15	45	50	32	36	24	22	9	26	10
	20	19	20	17	24	17	37	43	38	27	19	24	10	24	14
	18	12	28	17	9	25	35	21	53	30	9	32	5	12	21
	13	17	13	14	12	13	27	29	26	24	13	13	3	16	13
	15	20	15	15	15	11	30	35	26	24	12	13	6	23	13
	13	10	14	11	14	10	24	24	24	20	11	9	4	13	15
	20	12	17	16	25	19	36	37	37	24	19	23	12	18	14
	18	12	19	16	14	11	34	26	30	26	14	14	8	12	16
	17	24	19	21	21	11	38	45	30	26	26	18	12	19	12
	16	25	40	8	16	24	24	41	64	13	34	36	11	7	28
	20	21	-	19	19	-	40	40	-	32	28	-	8	12	-
										316	247	229+	93	196	167

TREND

of Horns Cross, Swanscombe and Northfleet readings. i.e. "tons per 3 sq miles"

Month	Dust from cement wks			Dust from elsewhere			Total solids			% Dust from cement works		
	'63	'64	'65	'63	'64	'65	'63	'64	'65	'63	'64	'65
	-	136	71	-	39	23	101	175	94	-	78	76
	132	93	84	22	59	23	154	152	107	85	61	78
	83	86	88	30	30	32	113	116	120	73	74	73
	92	73	121	18	45	123	110	118	244	84	62	50
	86	75	55	16	43	57	102	118	112	84	64	49
	89	61	65	22	52	78	111	113	143	80	54	45
	81	23	53	23	60	37	104	83	90	77	28	59
	64	95	70	33	53	42	97	148	112	66	64	62
	111	53	59	19	24	41	130	87	100	85	61	59
	86	112	55	27	63	48	113	175	103	76	64	53
	52	140	147	35	26	68	87	166	215	60	84	68
	127	130	-	19	29	-	146	159	-	87	82	-
	1003+	1077	868+	264	523	572+						

AIR HYGIENE (continued)

DEPOSIT GAUGE READINGS

Month		% Dust from cement works		
		1963	1964	1965
<u>WHITE OAK</u>				
Jan	Jan	36	23	18
Feb	Feb	23	26	30
Mch	Mch	8	26	1
Apl	Apl	31	16	0
May	May	23	10	0
June	June	25	16	23
July	July	22	7	12
Aug	Aug	9	25	19
Sept	Sept	33	30	0
Oct	Oct	10	0	42
Nov	Nov	0	20	28
Dec	Dec	25	30	1
<u>BOW ARROW</u>		274	229	174
Jan	Jan	74	55	27
Feb	Feb	33	42	45
Mch	Mch		33	39
Apl	Apl	73	19	39
May	May	50	39	18
June	June	62	32	35
July	July	84	20	31
Aug	Aug	50	35	35
Sept	Sept	58	28	4
Oct	Oct	50	45	56
Nov	Nov	28	48	54
Dec	Dec	60	50	13
		622+	446	396
<u>DARTFORD CENTRAL</u>				
Jan	Jan	52	47	15
Feb	Feb	47	35	34
Mch	Mch	29	34	27
Apl	Apl	67	15	31
May	May	38	29	3
June	June	64	20	39
July	July	72	11	18
Aug	Aug	35	33	23
Sept	Sept	64	43	12
Oct	Oct	46	36	59
Nov	Nov	22	46	47
Dec	Dec	45	38	0
<u>JOYCE GREEN</u>		581	387	308
Jan	Jan	-	52	35
Feb	Feb	-	57	45
Mch	Mch	0	38	57
Apl	Apl	50	22	5
May	May	-	26	19
June	June	36	24	37
July	July	45	17	29
Aug	Aug	30	39	45
Sept	Sept	68	43	5
Oct	Oct	47	28	25
Nov	Nov	25	40	39
Dec	Dec	62	36	0
			422	341

AIR HYGIENE (continued)
DEPOSIT GAUGE READINGS

Month	Dust from cement works		
	1963	1964	1965
<u>WHITE OAK</u>			
Jan	26	25	18
Feb	25	26	20
Mar	8	26	1
Apr	21	16	0
May	25	10	0
June	25	16	25
July	22	7	12
Aug	9	25	19
Sept	25	30	0
Oct	10	0	42
Nov	0	20	28
Dec	25	20	1
	274	219	174
<u>BOW ARROW</u>			
Jan	74	25	27
Feb	25	42	42
Mar		25	29
Apr	75	19	29
May	20	29	18
June	62	25	25
July	84	20	21
Aug	20	25	25
Sept	28	28	4
Oct	20	42	26
Nov	28	48	24
Dec	60	20	12
	622+	476	398
<u>DARTFORD CENTRAL</u>			
Jan	25	47	15
Feb	47	25	24
Mar	29	24	27
Apr	67	15	21
May	28	29	2
June	64	20	29
July	75	11	18
Aug	25	25	25
Sept	64	42	12
Oct	46	26	29
Nov	22	46	47
Dec	42	29	0
	581	387	308
<u>JOYCE GREEN</u>			
Jan	-	25	25
Feb	-	27	42
Mar	0	28	27
Apr	20	22	2
May	-	26	19
June	26	24	27
July	42	17	29
Aug	20	29	42
Sept	68	42	2
Oct	47	28	25
Nov	25	40	29
Dec	62	26	0
		422	241

AIR HYGIENE (continued)

DEPOSIT GAUGE READINGS (continued)

1965

Month	% Dust from cement works		
	1963	1964	1965
HORNS CROSS			
Jan		77	82
Feb	94	70	94
Mch	77	80	97
Apl	85	73	42
May	90	90	45
June	85	74	69
July	90	28	72
Aug	66	72	75
Sept	94	63	61
Oct	78	60	43
Nov	63	86	73
Dec	90	98	43
	912+	871	796
SWANSCOMBE			
Jan	74	83	79
Feb	80	63	72
Mch	69	63	64
Apl	75	53	54
May	74	55	55
June	75	54	27
July	59	17	59
Aug	66	61	55
Sept	82	65	72
Oct	83	75	67
Nov	61	83	74
Dec	89	72	69
	887	744	747
NORTHFLEET			
Jan	87	73	70
Feb	80	48	70
Mch	73	39	63
Apl	86	44	60
May	89	46	51
June	80	33	50
July	84	47	37
Aug	66	52	62
Sept	76	55	47
Oct	68	58	60
Nov	54	81	56
Dec	80	71	
	923	647	626+

DUST FROM CEMENT WORKS

MONTHLY TOTALS OF DARTFORD CENTRAL AND WHITE OAK GAUGES

Month	1963	1964	1965
Jan	22	15	5
Feb	21	13	12
Mch	5	13	6
Apl	26	6	8
May	10	9	0
June	14	7	11
July	17	3	6
Aug	8	9	7
Sept	20	13	2
Oct	7	8	19
Nov	3	12	17
Dec	12	11	0
	165	119	93

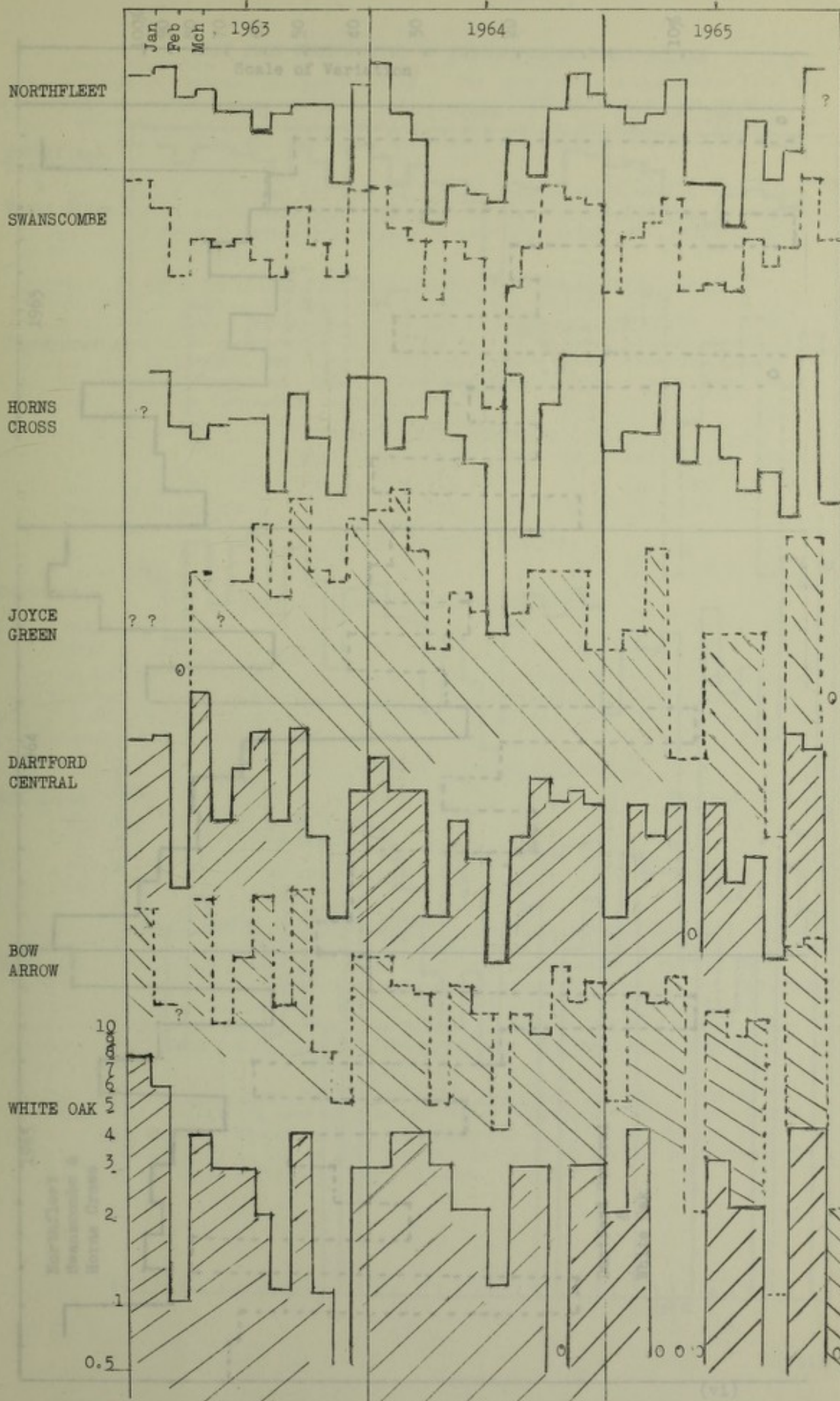
AIR HYGIENE (continued)
DEPOSIT GAUGE READINGS (continued)

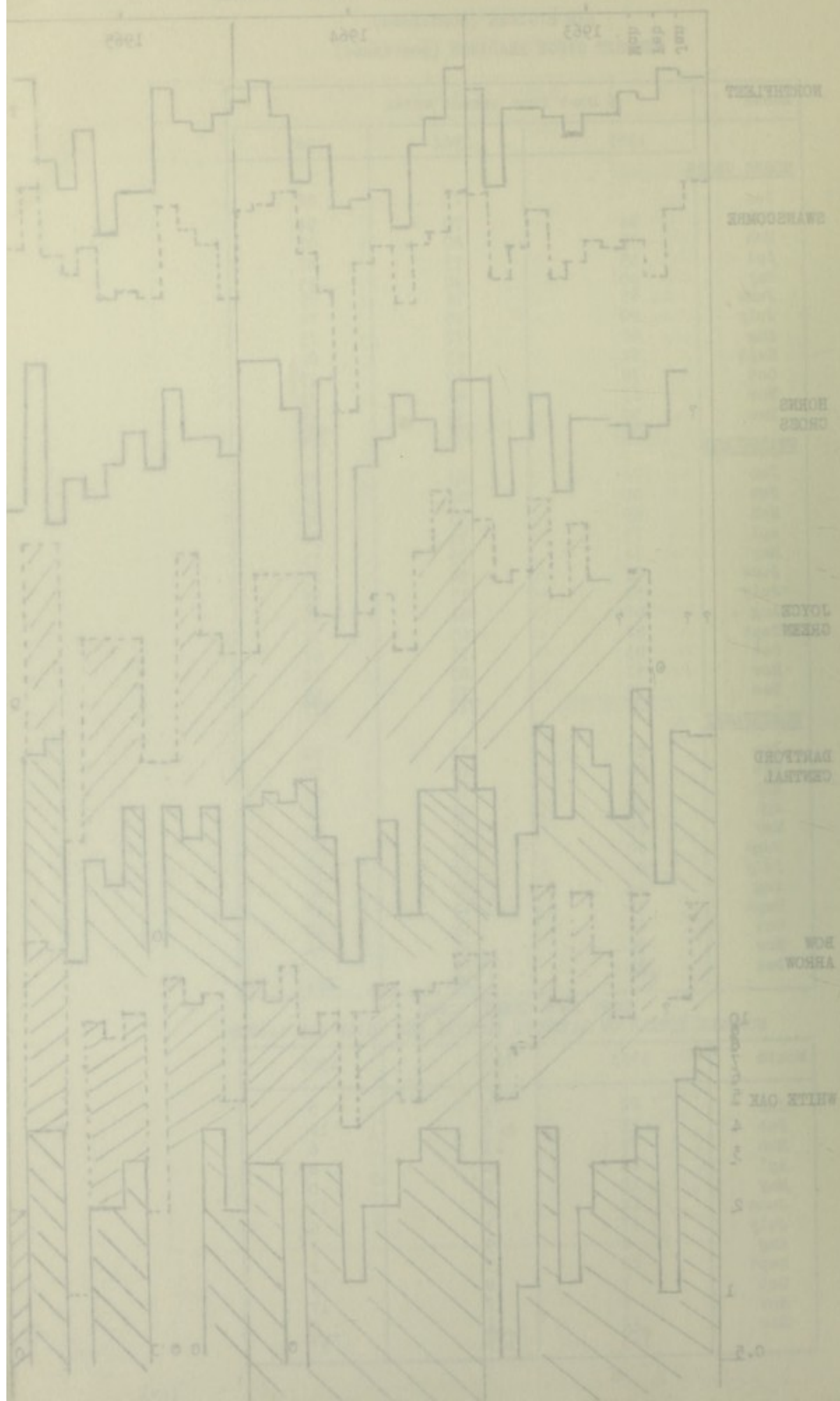
Month	% Dust from cement works		
	1963	1964	1965
HORN CROSS			
Jan	74	77	85
Feb	80	70	94
Mar	69	80	97
Apr	75	75	45
May	74	90	45
June	75	74	69
July	59	58	75
Aug	66	75	75
Sept	82	65	61
Oct	83	60	45
Nov	61	66	75
Dec	88	98	45
	815+	871	796
SWANSCOMBE			
Jan	74	63	75
Feb	80	63	75
Mar	69	63	64
Apr	75	55	54
May	74	55	55
June	75	54	57
July	59	17	59
Aug	66	61	55
Sept	82	65	75
Oct	83	75	67
Nov	61	83	74
Dec	88	75	69
	887	744	747
NORTHERLY			
Jan	87	75	70
Feb	80	48	70
Mar	75	39	63
Apr	86	44	60
May	89	46	51
June	80	35	50
July	84	47	57
Aug	66	55	65
Sept	76	55	47
Oct	66	58	60
Nov	54	61	56
Dec	80	77	56
	753	687	652+

DUST FROM CEMENT WORKS
MONTHLY TOTALS OF BARTON CENTRAL AND WHITE OAK GAUGES

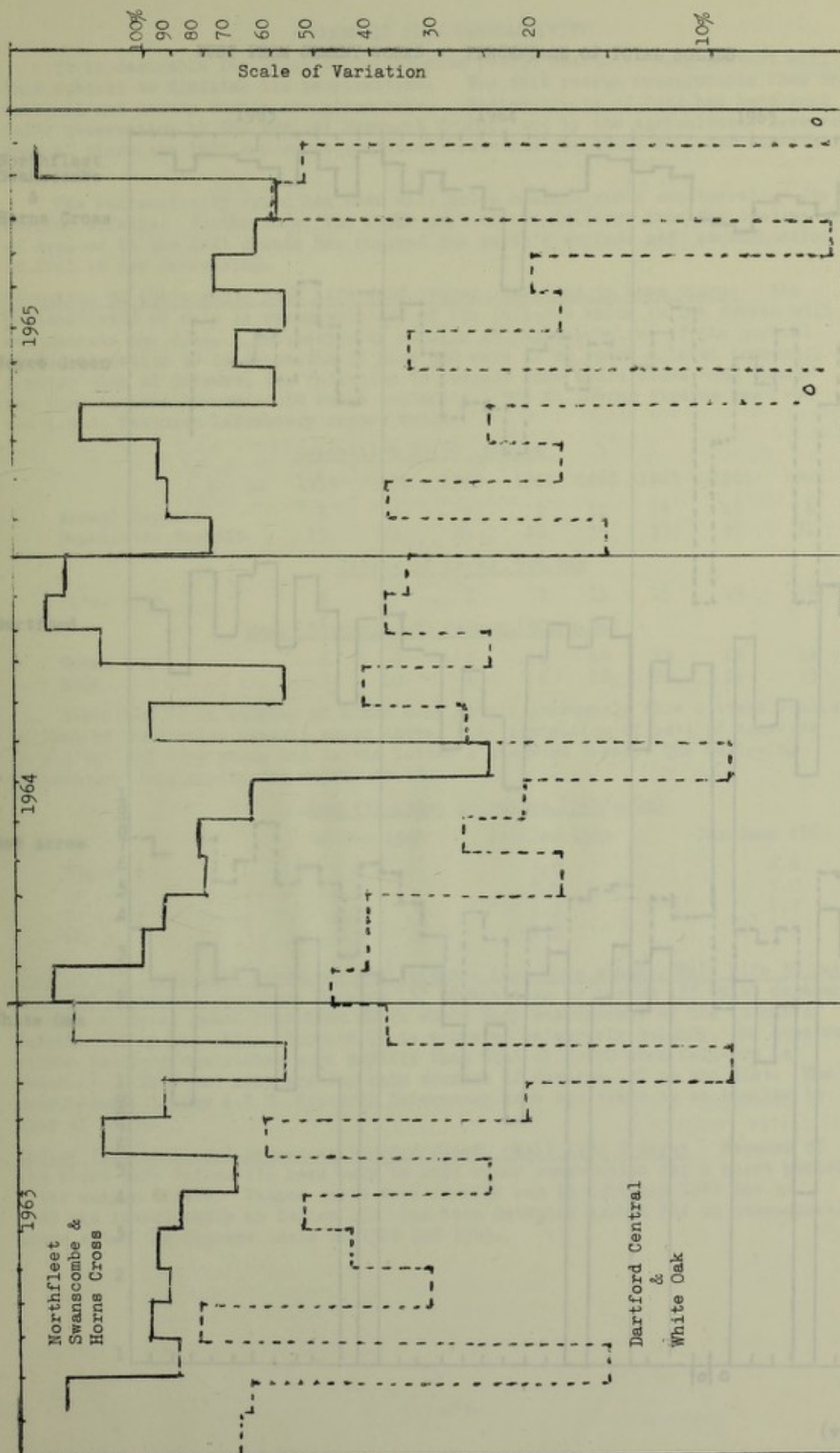
Month	1963	1964	1965
Jan	53	15	5
Feb	51	15	15
Mar	5	15	6
Apr	56	6	8
May	10	9	0
June	14	7	11
July	17	5	6
Aug	8	9	7
Sept	50	15	5
Oct	7	8	19
Nov	5	15	17
Dec	15	11	0
	165	119	95

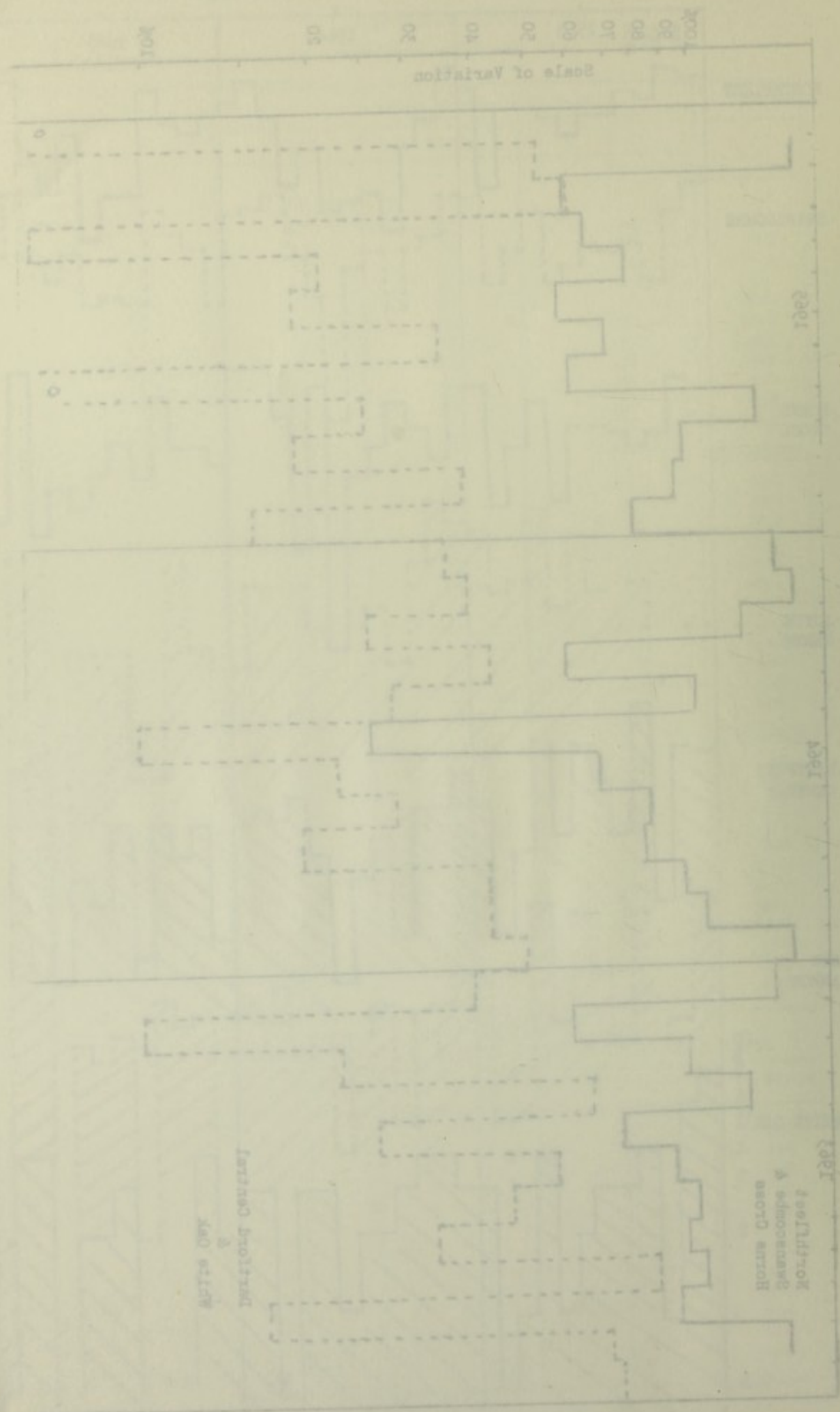
DUST FROM CEMENT WORKS. WEIGHT PER AREA





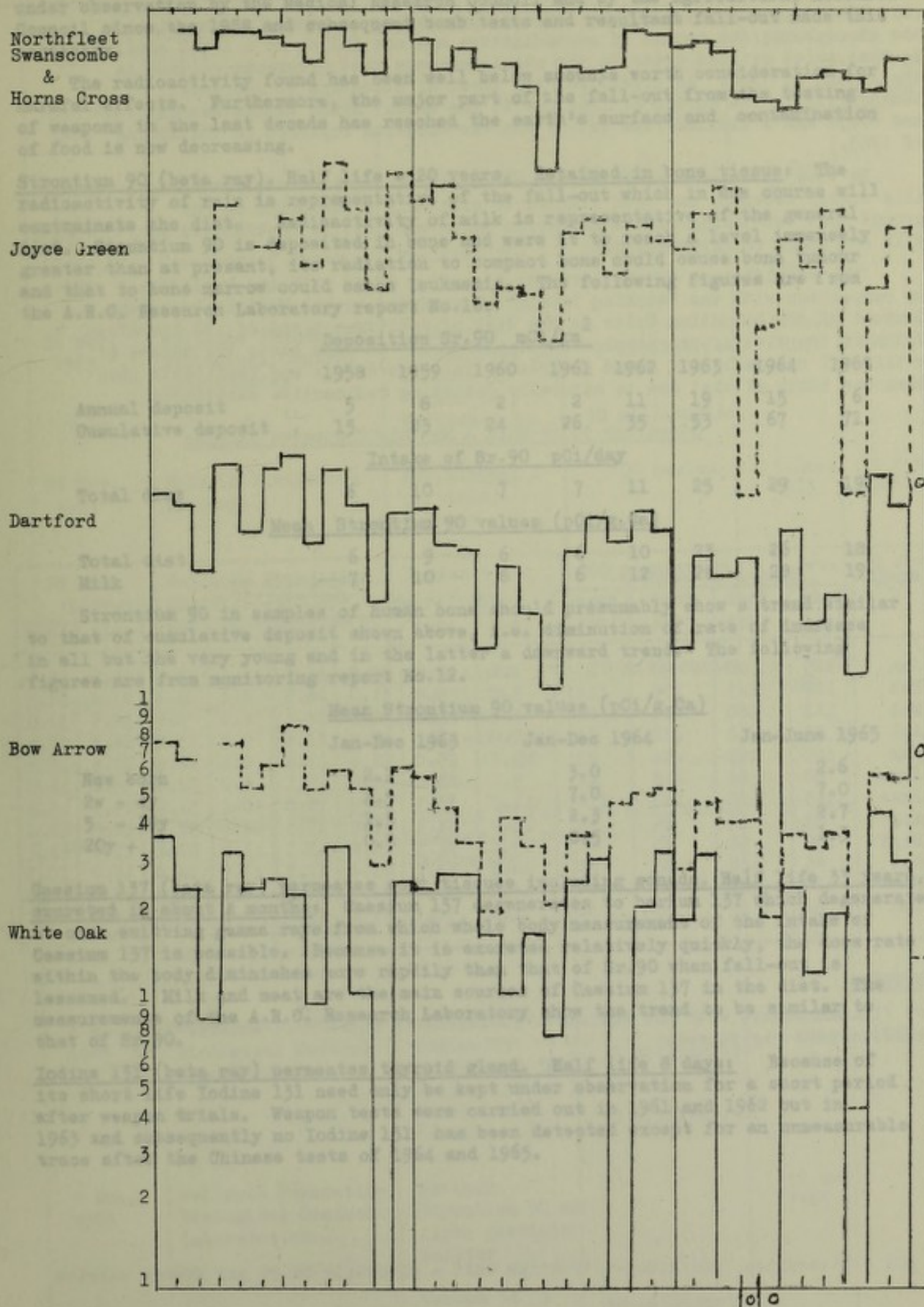
DUST FROM CEMENT WORKS. WEIGHT PER AREA



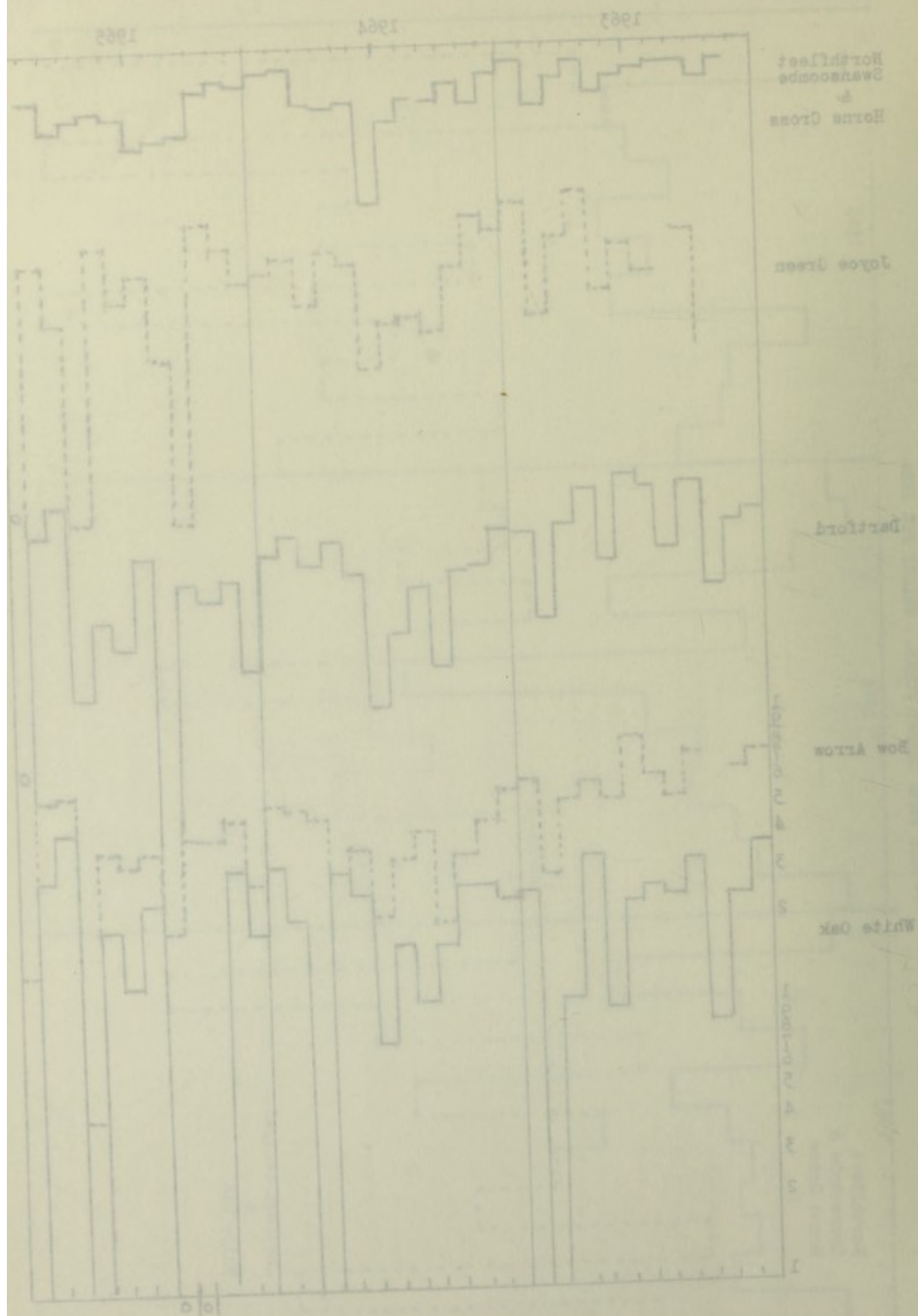


DEAL FROM GENERAL AGENTS' MECHILL LEE VINEY

	1963	1964	1965
DUST FROM CEMENT WORKS - PERCENTAGE OF TOTAL SOLIDS			
This subject was dismissed by the court.			



DUST FROM CEMENT WORKS - PERCENTAGE OF TOTAL SOLIDS



APPENDIX VII- RADIOACTIVITY

It is desirable for those concerned with public health to keep contact with this subject to diminish its perplexities. For this reason measurements from the national and county survey are given here. Radioactivity of food has been kept under observation by the Medical Research Council and by the Agricultural Research Council since the 1958 and subsequent bomb tests and resultant fall-out made this necessary.

The radioactivity found has been well below amounts worth consideration for harmful effects. Furthermore, the major part of the fall-out from the testing of weapons in the last decade has reached the earth's surface and contamination of food is now decreasing.

Strontium 90 (beta ray). Half life = 20 years. Retained in bone tissue: The radioactivity of rain is representative of the fall-out which in due course will contaminate the diet. Radioactivity of milk is representative of the general diet. Strontium 90 is deposited in bone and were it to reach a level immensely greater than at present, its radiation to compact bone could cause bone tumour and that to bone marrow could cause leukaemia. The following figures are from the A.R.C. Research Laboratory report No.16.

	<u>Deposition Sr.90 mCi/km²</u>							
	1958	1959	1960	1961	1962	1963	1964	1965
Annual deposit	5	8	2	2	11	19	15	6
Cumulative deposit	15	23	24	26	35	53	67	71
	<u>Intake of Sr.90 pCi/day</u>							
Total diet	6	10	7	7	11	25	29	19
	<u>Mean Strontium 90 values (pCi/g.Ca)</u>							
Total diet	6	9	6	6	10	23	26	18
Milk	7	10	6	6	12	26	28	19

Strontium 90 in samples of human bone should presumably show a trend similar to that of cumulative deposit shown above, i.e. diminution of rate of increase in all but the very young and in the latter a downward trend. The following figures are from monitoring report No.12.

	<u>Mean Strontium 90 values (pCi/g.Ca)</u>		
	Jan-Dec 1963	Jan-Dec 1964	Jan-June 1965
New born	2.1	3.0	2.6
2w - 4y	4.5	7.0	7.0
5 - 19y	1.5	2.3	2.7
20y +	0.5	0.5	1.3

Caesium 137 (beta ray) permeates soft tissues including gonads. Half life 33 years, excreted in about 4 months: Caesium 137 degenerates to barium 137 which degenerates at once emitting gamma rays from which whole body measurement of the intake of Caesium 137 is possible. Because it is excreted relatively quickly, the dose rate within the body diminishes more rapidly than that of Sr.90 when fall-out is lessened. Milk and meat are the main sources of Caesium 137 in the diet. The measurements of the A.R.C. Research Laboratory show the trend to be similar to that of Sr.90.

Iodine 131 (beta ray) permeates thyroid gland. Half life 8 days: Because of its short life Iodine 131 need only be kept under observation for a short period after weapon trials. Weapon tests were carried out in 1961 and 1962 but in 1963 and subsequently no Iodine 131 has been detected except for an unmeasurable trace after the Chinese tests of 1964 and 1965.

9 Dec. 1965
Wellcome Foundation
Biological Control
Laboratories
Neither
Strontium 90 nor
Alpha particles
emitted
Carbon 14 } 10 millieuries
Thallium }
-57-71-
Others } 2 millieuries

APPENDIX VII- RADIOACTIVITY (continued)

RADIOACTIVITY OF FOODSTUFFS IN KENT

The following is from reports by the County Analyst:

With the suspension of the large scale testing of atomic weapons in the atmosphere, the amount of contamination has now fallen to a level similar to that which existed prior to the atomic weapons test programme resumed in the Autumn of 1962. As predicted, the level of Strontium 90 increased temporarily in the Spring of 1964 due to the annual cycle of the weather and crops and a similar rise but of shorter duration occurred in the Spring of 1965.

In view of this decrease in the amount of radioactive contamination, this survey recently has been limited to milk only - justified on the ground that two-thirds of the Strontium 90 in our diet is contributed by milk and other dairy products.

The significance of the level of Strontium 90 in milk may be assessed by comparison with the "working levels" recommended by the Medical Research Council of 400 Strontium Units in the diet of individuals and of 130 Strontium Units in the diet of the population as a whole. On this basis the amount of artificial radioactivity found at present is of no danger and represents less than one tenth of that due to naturally occurring radioactive substances.

Strontium 90 in Milk - Monthly Composite Samples

1962 - 1965

Month	Number of samples				Strontium 90							
					pCi/litre*				pCi/g.Ca*			
	Year 1962	Year 1963	Year 1964	Year 1965	1962	1963	1964	1965	1962	1963	1964	1965
Jan	125	88	99	83	4.6	10.3	29.7	26.2	4.0	8.5	25.6	21.9
Feb	105	143	136	112	5.2	9.8	31.0	26.8	4.4	8.4	27.0	22.3
Mar	112	160	94	80	4.7	11.0	38.0	38.4	4.0	9.6	32.5	32.6
Apr	81	64	122	74	7.0	15.5	30.8	23.8	5.8	13.4	26.3	22.5
May	107	169	94	83	9.7	25.0	32.6	17.4	8.6	21.6	28.6	15.5
June	80	84	118	42	9.1	28.0	34.5	15.1	8.2	24.5	30.0	12.2
June	103	100	120	110	11.7	35.5	28.8	16.8	10.4	31.0	25.5	15.4
Aug	65	62	96	86	15.9	34.4	22.4	13.5	14.6	32.8	18.8	12.4
Sept	106	54	85	81	15.4	32.5	21.8	13.3	13.6	27.6	17.9	11.2
Oct	95	146	81	80	14.9	28.1	21.4	12.1	13.0	24.0	16.9	10.3
Nov	120	123	93	66	14.4	36.4	22.4	14.1	12.5	31.4	19.0	11.8
Dec	64	87	38	36	12.3	34.3	27.1	17.8	10.4	29.6	21.3	15.1

INDUSTRY

In accordance with the Radioactive Substances Act, 1960, the following premises were registered:- in 1964 for one source of Caesium 137 not exceeding 2 millicuries. They were for providing a beam for operating a radiochemical equipment.

There was no registered source in 1965.

* pCi = picocurie. pCi/g.Ca = Strontium Unit = picocurie Sr.90 per gramme calcium

No. in file	Date registered	Premises	Radioactive substances	Maximum Radioactivity	Date from which use began	Registration revoked w.e.f.
	28 August 1963	Wiggins Teape Paper Mills	Thallium 204	175 millicuries	1 Dec. 1963	19th Se 1964
	18th Sept. 1964	Wiggins Teape Paper Mills	Thallium 204 Carbon 14	175 millicuries 500 microcuries	19 Sept. 1964	13 June 1967
	15 Oct 1963	London Paper Mills	Thallium 204	25 millicuries	1 Dec. 1963	
	10 Sept. 1963	Greaseproof Paper Mills	Thallium 204	25 millicuries	1 Dec. 1963	
	26 Nov. 1963	Wellcome Foundation Biological Control Laboratories	Iodine 131 Phosphorous 32 Sulphur 35 Carbon 14 Tritium	2 millicuries 10 millicuries	1 Dec. 1963	10 Nov 1965
	28 Nov. 1963	Baldwin Instrument Company	Not alpha particle emitter	100 curies	1 Dec. 1963	18 Feb 1966
	28 Nov. 1963	Wellcome Foundation Chemical Development Laboratories	Iodine 131	100 microcuries	1 Dec. 1963	10 Nov 1965
	15 June 1965	College of Technology	Not alpha particle emitter not strontium 90	10 millicuries	17 June 1965	
	15 June 1965	College of Technology	Cobalt 60 or Caesium 137 or Radium 226	10 millicuries	17 June 1965	
	8 Nov. 1965	Wellcome Foundation Chemical Development Laboratories	Iodine 131 or 125	2 millicuries	10 Nov. 1965	
	8 Nov. 1965	Wellcome Foundation Biological Control Laboratories	Iodine 125 Iodine 131 Phosphorus 32 Sulphur 35 Carbon 14 Tritium	2 millicuries 10 millicuries	10 Nov. 1965	11 Dec. 1965
	9 Dec. 1965	Wellcome Foundation Biological Control Laboratories	Neither Strontium 90 nor Alpha particle emitter		11 Dec. 1965	
			Carbon 14 Tritium Others	10 millicuries 2 millicuries		

(Continued)

CERTIFICATES OF AUTHORISATION FOR THE DISPOSAL AND ACCUMULATION
OF RADIOACTIVE WASTE

Date Registered	Premises	Maximum amounts	Effective date of registration	Registration revoked w.e.f.
26 Nov. 1963	Wellcome Foundation Biological Laboratories	By deposit- 2 microcuries/cu.ft By burning- 5 microcuries/day Liquid- 1 millicurie/day	1 Dec. 1963	10 Nov. 1965
28 Nov. 1963	Wellcome Foundation Chemical Development Laboratories	By deposit- 2 microc/131/cu.ft By burning- 5 microc/one week Liquid- 100 microc/month	1 Dec. 1963	10 Nov. 1965
15 June 1965	College of Technology	Solid- 10 microc/container 1 microc/article Liquid- 500 microc/week	17 June 1965	29 Nov. 1965
8 Nov. 1965	Wellcome Foundation Chemical Development Laboratories	Solid- 2 microc/cu.ft Burning- 5 microc/week Liquid- 100 millic/month	10 Nov. 1965	19 Aug. 1966
8 Nov. 1965	Wellcome Foundation Biological Laboratories	Solid- 2 microc/cu.ft Burning- 5 microc/day Liquid- 1 millic/month	10 Nov. 1965	11 Dec. 1965
26 Nov. 1965	College of Technology	Solid- 2 microc/cu.ft Liquid- 500 microc/week	29 Nov. 1965	
9 Dec. 1965	Wellcome Foundation Biological Laboratories	Solid- 2 microc/cu.ft Burning- 5 microc/day Liquid- 1 millic/month	11 Dec. 1965	19 August 1966

DARTFORD BOROUGH

APPENDIX VIII.

VERMIN CONTROL AND DISINFESTATION

Rats and Mice.

	Premises involved	
	1964	1965
Premises inspected as a result of notification	220	186
Infestations found by independent survey	3	11
Premises treated for rats	152	149
Premises treated for mice	67	48

	Complaints		Treatments		Premises	
	1964	1965	1964	1965	1964	1965
Bed Bugs	4	5	14	4	14	4
Wasps	32	90	32	70	32	67
Fleas	1	2	3	1	3	1
Woodworm	2	2	2	-	2	-
Other insects	17	14	2	5	2	5
Disinfected for other infections	-	-	1	-	1	-

APPENDIX IX.

HYGIENE OF PLACES OF WORK

FACTORIES. The Council enforces the provision of sanitary conveniences in all factories. In factories without mechanical power the Council also enforces the provision of adequate cleanliness, temperature, ventilation and drainage.

	1964	1965
Number on register at 31st December	210	198
Inspections	224	150
Defects found	15	19
Defects remedied	16	18
Defects referred to H.M. Inspector	-	-
Defects referred by H.M. Inspector	5	2
Outworkers in the Borough at 31st December	43	26

OFFICES, SHOPS AND RAILWAY PREMISES ACT

	1964	1965
Number of premises registered at end of year	330	409
Number of premises receiving general inspection	313	124
Number of visits by Public Health Inspectors	387	1642
Number of defects found	297	565

The premises inspected were:

Offices	78	21
Retail shops	205	88
Wholesale shops and warehouses	6	1
Catering establishments open to public, and canteens	23	14
Fuel storage depots	1	nil
	<u>313</u>	<u>124</u>

The registration provisions of the Act came into operations in mid-1964. By 1st January, 1965 the remainder of the Act was in operation.

APPENDIX IX (continued)

Visits under the Offices, Shops and Railway Premises Act are for enforcement of provisions in regard to cleanliness, overcrowding, temperature, ventilation, lighting, sanitary conveniences, washing facilities, supply of drinking water, accommodation for clothing, sitting facilities, seats for sedentary work, eating facilities, floors, passages and stairs, fencing of exposed parts of machinery and first aid.

In 1965 a special survey was carried out by the Council's Public Health Inspectors in regard to lighting. Inadequate lighting was found to be rare.

SHOPS ACT, 1950

Set out below are details of the number of inspections made and notices served and complied with during the year:-

	1964	1965
Number of inspections made	246	78
Number of notices served	9	10
Number of notices complied with	13	11

Analysis of notices complied with:-

Abstracts*	9	
Sanitary accommodation defective*	-	
Sanitary accommodation insufficient*	-	
Inadequate temperature	6	3
Half-day or Sunday closing offences	-	8
Offences relating to intervals for meals, etc.	-	-
Inadequate washing facilities *	1	
No seats for female assistants *	2	
Inadequate ventilation *	-	

*In 1965 inspected under the Offices, Shops and Railway Premises Act, 1963.

APPENDIX X.

HYGIENE FACILITIES PROVIDED BY COUNCIL

SLIPPER BATHS. The Council provide and maintain the public slipper baths and washing facilities at Spital Street. The number of persons using these were:-

	1962	1965	1964	1965
Men	11,895	13,792*	13,039*	12,199*
Boys	405	448	409	322
Women	3,473	3,597*	3,200*	2,929*
Girls	404	484	409	403
	<u>16,177</u>	<u>18,321</u>	<u>17,057</u>	<u>15,853</u>

*These figures include old age pensioners, 407 men and 618 women in 1963, 578 men and 653 women in 1964 and 575 and 613 respectively in 1965.

PUBLIC HEALTH COMMITTEE

1964 - 1965

Chairman: Alderman Mrs. A. Ager
Deputy Chairman: Councillor E. J. Grover

The Mayor (Councillor A.L. Cowell, J.P.)	Councillor R.D. Sage
Alderman J. Huggett	Councillor Mrs. D. Smith
Alderman E.C.G. Lanyon	Councillor D.H. Stubbs
Alderman E.T. Lenderyou	Councillor J.S.R. Wise
Councillor Mrs. E.P. May	

1965 - 1966

Chairman: Alderman Mrs. A. Ager
Deputy Chairman: Councillor E. J. Grover

The Mayor (Councillor Mrs. D. Smith, J.P.)	Councillor R.F. Maxted
Alderman J. Huggett	Councillor Mrs. E.P. May
Alderman E.T. Lenderyou	Councillor R.D. Sage
Councillor W.H. Forsyth	Councillor D.J. Wise
Councillor Mrs. B.M. Gribble	Councillor K.A.B. Wood
Councillor Mrs. E.M. Grover	

PUBLIC HEALTH OFFICERS

Medical Officer of Health (part-time)	J. H. Hudson	
Chief Public Health Inspector	T. H. Iddison	
Additional Public Health Inspectors	J. Wann	(left 15.1.65)
	J. Wightman	(left 5.2.65)
	K. Palmer	(left 31.7.64)
	I. S. Fox	(commenced 1.4.65)
	C. R. Rampling	(commenced 9.8.65)
	R. Pyman	(commenced 30.8.65)
Pupil Public Health Inspector	N. J. Hibbett	(commenced 28.9.64)
		(left 5.11.64)
	R. A. Simpson	(commenced 20.9.65)
Chief Clerk	E. Sorrell (Miss)	(retired 30.6.65)
Clerical Assistants	M. Pestell (Mrs)	
	M.E. Taylor (Mrs)	(commenced 20.4.64)
		(left 13.8.65)
	G.M. Cook (Mrs)	(commenced 26.4.65)

