Administration report of the Public Health Department of the City of Port-of-Spain.

ADMINISTRATION REPORT

OF THE

Public Health Department of the City of Port-of-Spain

FOR THE YEARS

1945 and 1946

BY

DR. RODERICK MARCANO, O.B.E., M.D. (Lond.), M.R.C.P. (Lond.), D.P.H. (Lond.),
MEDICAL OFFICER OF HEALTH

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Local Authority in the Urban Sanitary District of the City of Port-of-Spain 1944-45

The City Council

His Worship the Mayor, Councillor H. W. A. Hudson Phillips, ll.b. (Lond.), j.p.

Deputy-Mayor :
Councillor Albert Gomes.

Aldermen :

G. Cabral
V. E. Henry
L. A. Pujadas
L. B. Thomas
H. O. B. Wooding.

Councillors :

A. A. Almandoz
V. P. Alexis
B. T. Kydd
E. M. Mitchell
C. B. Mathura
Q. O'Connor
P. Quamina
A. Richards
J Stephen
V. V. Selman
N. Tang
Dr. E. de Verteuil
C. Ward.

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Administration Report of the Public Health Department of the City of Port-of-Spain. Years 1945 and 1946

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PUBLIC HEALTH DEPARTMENT,
35, FREDERICK STREET,
PORT-OF-SPAIN,
TRINIDAD, B.W.I.

7th October, 1947.

URBAN SANITARY DISTRICT OF THE CITY OF PORT-OF-SPAIN.

SECRETARY, LOCAL AUTHORITY,

SIR,

I have the honour to submit, for the information of the Local Authority, the report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the years ended 31st December, 1945 and 31st December, 1946.

On the 25th April, 1946, I left for the United Kingdom on holiday and study leave and I was away for a period of ten months and twelve days arriving back in the Colony on the 7th March, 1947. Because of my absence the usual annual report for the year 1945 could not be prepared and because of the pressure of time and the call of numerous duties since my return and with a view, also, to economy in printing cost, I have decided to condense two annual reports into one and to present one comprehensive report for the years 1945 and 1946.

The state of the public health during the two years under review has remained at a satisfactory level, there being no unusual prevalence of epidemic disease or any untoward insanitary feature to disturb the routine working of the Public Health Department though the work of the Anti-Rat Unit had to be geared to stem an increasing rat nuisance, the prevalence of which had been becoming apparent towards the end of 1945, and which was undoubtedly associated with the greater facilities for feeding and breeding provided by the average backyard, the result of the growing of food and the rearing of poultry as part of the war effort.

In so far as vital statistics are concerned the mean population was estimated at 106,347 in 1945 and 100,798 in 1946. In this connection it must be borne in mind that a census of the population of all the Islands of the British West Indies was taken in April 1946, as a result of which the population of the City was calculated to be 93,198 and that of the Colony 562,301 souls.

From these facts it is apparent that the estimated population for the years 1945 and 1946 based on the last census in 1931 was greater than the actual population calculated on the census returns in 1946.

The figure of 93,198 represents the actual resident or night population which I need hardly point out is less than the day population, perhaps by as much as 20,000 souls—a fact of some importance when considering the question of food and water supply, of sanitary conveniences and sewage disposal, &c., &c.

The birth rate in 1945 worked out at 37.34 per 1,000 population and in 1946 at 41.00 per 1,000 ; the death rate 14.34 and 13.85 per 1,000 population ; the infant mortality rate at 60.17 and 58.31 per 1,000 live births, and the maternal mortality rate at 3.02 and 1.45 per 1,000 live births, respectively.

As regards death rates from specific causes, the highest rate recorded was from the notifiable infectious diseases as a whole, the figure being 247 per 100,000 in 1945 and 245 per 100,000 in 1946. In as much, however, as these diseases include a number of diseases of varying causation and affecting different physiological systems no undue significance need be attached to these figures as a whole but it may be noted that they represent a lowering of the corresponding rates for 1943 and 1944 which worked out at 320 and 271 per 100,000, respectively.

Diseases of the heart and blood vessels again occupied pride of place, as they have done for the past twenty five years, in the list of causes of death with 221 per 100,000 in 1945 and 202 per 100,000 in 1946.

Next in the list come diseases of the nervous system including cerebral haemorrhage with a mortality of 166 per 100,000 in 1945 and 147 per 100,000 in 1946 and not far behind occupying third place is pulmonary tuberculosis with figures of 141 per 100,000 in 1945 and 157 per 100,000 in 1946. This is the fifth time in the last ten years that pulmonary tuberculosis has occupied this position. It emphasises the great toll in human life that this disease levies on the citizens of the urban sanitary district.

The enteric fever rate, always indicative of the general state of sanitary intelligence in a district, remained fairly steady at 9 per 100,000 in 1945 and 8 per 100,000 in 1946 respectively, a slight decline from 12 and 9 per 100,000 respectively in the years 1943 and 1944. Not much reduction in the incidence of and mortality from this disease can be expected until the cleanliness of food and food handlers reaches a higher standard and the health education campaign has succeeded in instilling the elementary principles of hygiene in those who handle and prepare the food of the poorer section of the population.

Syphilis claimed fewer victims in 1945 and 1946 than in the previous years 1943 and 1944, the mortality rate being 21 and 20 per 100,000 respectively as compared with 28 and 35 per 100,000, and the death rate from cancer and other malignant diseases worked out at 75 and 78 per 100,000 respectively—a decline of 11 and 3 per 100,000 on the previous years 1943 and 1944.

On the whole, these statistics can be considered satisfactory in as much as they represent a decline in the mortality rate for previous years but, with few exceptions, they are far too high compared with similar rates in the larger centres of temperate and subtropical climes and they call for a greater concentration of effort in nearly every field of the public health activities of the City.

It will occasion no surprise when I say that none of the major public health problems with which we have been faced during the past five years have been solved during the two years under review. Preoccupation with the waging of the war inevitably precluded serious consideration of problems which demanded money, labour and materials on a large scale, particularly of those materials which entail the using up of valuable shipping space to bring them from abroad.

The City still remains without an adequate water supply ; the catchment areas of the sources of our water supply are becoming more and more built upon ; the sewering of the East Dry River and Belmont subdistricts still remains unaccomplished and the relief of congestion with all its attendant ills in that Cinderella of all subdistricts, the East Dry River Area, by a better general layout with wider streets, a more efficient main drainage system, the provision of more open spaces in and about individual lots, etc., is long overdue.

Two events which are likely to have a profound bearing on the public health must be here recorded—the first, the cessation of hostilities in the European Zone on the 5th May 1945, and the second the cessation of hostilities in the Pacific Zone and the bringing of the second World War to an end in August, 1945.

It is to be hoped that the Council as Local Health Authority will have the necessary funds to carry out an intensive and extensive health programme directed towards the improvement of the public health of the sanitary district and that, as soon as materials and equipment have become freely available, large scale improvement works, too long delayed, will be undertaken.

At the moment I write, however, the sky is clouded by the high and rising cost of living, by import restrictions, by a general deterioration in the economic condition of the Colony which was not altogether unexpected and which is the direct aftermath of the war which has just been successfully concluded.

It can only be hoped that this is a temporary, passing phase and that the general health of the people of the Colony in general and of the City in particular will not be adversely affected while it lasts.

It is a source of great pleasure to be able to record the great interest taken in all health problems and the sympathetic and helpful consideration given to all public health matters by His Worship the Mayor, Aldermen and Councillors ; their unstinted and loyal support and co-operation have been a source of great comfort to the Public Health Department in the difficult and trying times through which we are passing. I am to record thanks to the City Engineer's and the Town Clerk's Departments for valuable assistance and willing collaboration in all matters of mutual concern.

I have the honour to be,

Sir,

Your obedient servant,

RODERICK MARCANO,
Medical Officer of Health.

SANITARY CIRCUMSTANCES

Water

The water situation remained for the most part in *statu quo* during the two years under review. Public attention has become increasingly focussed on the Maraval river supply not because of any further deterioration in the quality of the raw river water but because of the desire of land owners in the Catchment Area to build on their holdings—a desire which the City Council as Waterworks Authority cannot permit to be translated into practical effect because of the insistent fear of further pollution of what is admittedly an unsatisfactory source.

The matter has even claimed the intervention of the Central Board of Health which has passed a resolution condemning the Maraval river as an unsatisfactory and "highly polluted" source and has called upon the City Council either to replace or to subject the water to a more intensive and detailed purification process before sterilisation by chlorination. So far, no final solution has yet been arrived at, the matter being still in the correspondence stage, but in the meantime an automatic chloronome of the Paterson type has been installed at the Maraval Reservoir and some improvement has thereby been effected in that any increase in the volume of flow is automatically followed by an increase in the amount of chlorine added to sterilise the water thus eliminating the need for constant adjustment of the chloronome by hand.

I believe I am stating the Council's position fairly when I say that there is a general desire to replace the Maraval river source immediately by a more satisfactory supply, provided that that supply can be put into the Maraval Reservoir for distribution in the Waterworks District and provided that the cost of that supply approximates fairly closely to the present cost of winning water from the Maraval river.

A very high standard of potability was maintained during the two years 1945 and 1946 as can be seen by an examination of the figures listed in the tables reproduced below.

The grateful thanks of the Council again go out to Dr. J. L. Pawan, Senior Pathologist, whose care and devotion in the examination of the City's water, whose skill and experience in the interpretation of results and whose promptitude in the communication of unsatisfactory results have enabled us to avoid numerous pitfalls and to supply to consumers water that is undoubtedly of a good standard of purity.

I desire to record my personal thanks to him for continued valuable advice and ready assistance in this problem of water which calls for constant vigilance and unremitting care on the part of all the executive officers concerned.

Bacteriological Examination of Water Supply (Weekly Samples), year 1945

Where Derived	No. of Samples taken	Results of Examination					
		Safe			Unsafe		
		Up to Standard of Purity	Not up to Standard of Purity	Total No. Safe	B. Coli present	B. pyocyaneus present	Total No. Unsafe
*Cocorite (Wells)	51	46	—	46	4	1	5
*Diego Martin (Wells)	48	42	2	44	4	—	4
†St. Clair (Pumping Station)	41	40	—	40	1	—	1
‡St. Clair (Wells)—Raw Water	21	15	1	16	5	—	5
†Maraval (River)	105	103	—	103	1	1	2
Maraval (River)—Raw Water	2	—	—	—	2	—	2
§Cascade (River)	52	49	—	49	2	1	3
‖Quare River Flow into Knagg's Hill (Reservoir)	51	45	—	45	6	—	6
§St. Ann's (River)	52	51	—	51	1	—	1
On Private Property:							
Electric Ice Company (Wells)	1	1	—	1	—	—	—
Trinidad Electricity Commission:—							
Wells at Wrightson Road	29	29	—	29	—	—	—
Wells at Flament Street...	10	10	—	10	—	—	—
Total	463	431	3	434	26	3	29

Standard of Purity: B. Coli absent in 100 C.C.

*Chlorinated, not filtered.
†Filtered after Chlorination.
‡Chlorinated before distribution.
§Filtered before Chlorination.
‖Filtered before Chloramination.

Bacteriological Examination of Water Supply (Mixed), year 1945

No. of daily samples examined	No. of samples with B. Coli present (B. Coli in 100 C.C.)	Percentage of Samples with B. Coli present	No. of samples with B. Coli absent (B. Coli in 100 C.C.)	Percentage of samples with B. Coli absent
365	9	2.47	356	97.53

Bacteriological Examination of Water Supply (Weekly Samples), year 1946

Where Derived	No. of Samples taken	Results of Examination					
		Safe			Unsafe		
		Up to Standard of Purity	Not up to Standard of Purity	Total No. Safe	B. Coli present	B. pyocyaneus present	Total No. Unsafe
*Cocorite (Wells)	51	49	2	51	—	—	—
*Diego Martin (Wells)	45	42	1	43	2	—	2
†St. Clair (Pumping Station)	45	44	—	44	1	—	1
‡St. Clair (Wells) Raw Water	23	18	—	18	5	—	5
†Maraval (River)	89	85	—	85	2	2	4
§Cascade (River)	53	53	—	53	—	—	—
‖Knaggs' Hill Reservoir	69	57	1	58	11	—	11
‖Picton (Reservoir) — Quare River Supply	22	14	—	14	6	2	8
‖143, Charlotte Street (Tap) — Quare River Supply	1	1	—	1	—	—	—
‖Colonial Hospital (Tap) — Quare River Supply	45	31	—	31	14	—	14
§St. Ann's (River)	56	51	—	51	5	—	5
On Private Property:							
Trinidad Electricity Commission:—							
Wells at Wrightson Road	32	32	—	32	—	—	—
84, Marine Square—(Well)—Raw Water ...	1	—	—	—	1	—	1
Total	532	477	4	481	47	4	51

Standard of Purity: B. Coli absent in 100 C.C.

*Chlorinated, not filtered.
†Filtered after Chlorination.
‡Chlorinated before distribution.
§Filtered before Chlorination.
‖Filtered before Chloramination.

Bacteriological Examination of Water Supply (Mixed), year 1946

No. of daily samples examined	No. of Samples with B. Coli present (B. Coli in 100 C.C.)	Percentage of Samples with B. Coli present	No. of samples with B. Coli absent (B. Coli in 100 C.C.)	Percentage of samples with B. Coli absent
365	8	2.19	357	97.81

Sewage Disposal

Under this heading it is possible to report that plans for the sewering of Belmont and the East Dry River Sub-districts are taking shape, the Council being determined to get rid of the multiplicity of unsatisfactory and malodorous cesspits 'very many of which overflow as soon as the rains come' that are such an ugly feature in this area and which is undoubtedly responsible for a fair share of the prevailing ill-health to which attention has been drawn on so many occasions and in so many diverse ways.

With the cessation of hostilities it is expected that the necessary materials will be forthcoming from abroad and a loan to cover the expenditure involved will be floated without much difficulty.

Woodbrook, though a declared sewered area, still harbours a number of privy cesspits, and progress in getting house holders to install the W.C. system and connect up with the Council's sewerage works is slower than I had anticipated. This is due to the increased cost of installation which almost invariably has to be borne in the first instance by the Council whose funds are, I need hardly say, already sorely taxed, to shortage of materials and in a certain number of cases to the need for reconstruction of the entire premises before resort can be had to sewering.

The oiling of cesspits with a mixture of crude and distillate oils, a routine measure designed to prevent the spread of infectious diseases, particularly typhoid and dysentery, and also to keep down the offensive odours that often emanate from these antiquated conveniences, continued unabated during the years under report, the number sprayed in 1945 being 22,153 and in 1946, 19,490.

SANITARY INSPECTION OF THE DISTRICT

Anti-Rat and Anti-Mosquito Measures

Rat nuisance loomed largely in the public eye during the two years under report because of the increased prevalence of rats in the Urban Sanitary District, undoubtedly the result of greater facilities for rat feeding and rat breeding provided by the growing of foodstuffs in private yards and the rearing of poultry by householders, as well as the result of the increase in the number of harbourages underneath and around houses and on vacant premises in close proximity to built up areas.

There is no definite evidence to support the suggestion that the docking of ships alongside the deep water wharf is partly responsible for the increase of this nuisance, there being no great change in the relative number of rats caught in the wharf area during the years 1945 and 1946 as compared with previous years, nor has there been any marked change in the species of rat caught, ship rat being in fact less frequent than house rat, but this possibility is being borne carefully in mind and a strict and vigilant eye is being kept on this section of the foreshore; in fact there is one gang which operates exclusively along the sea front in this area.

Whilst the writer was away last year in the United Kingdom the opportunity to get first hand knowledge of the more recent developments in rat control methods presented itself and a period of 3 months was spent in the Infestation Division of the Ministry of Food where a full working knowledge of these methods was obtained. They consist briefly of poisoning, gassing and trapping, in that order of importance, and poisoning is undertaken only after a preliminary period of prebaiting to be followed after an interval of time by post baiting which tests the efficacy of the original operation. New types of bait, new poisons, a new make of trap with a highly sensitive treadle, new poison gases as well as new gadgets for the baiting of sewers, for the protection of poison points &c. &c. are in use, and the Department has been engaged during the last few months in getting a supply of these baits, poisons &c., and in the trying out of new baits of a local character with a view to undertaking a comprehensive campaign for the extermination of rats.

DESTRUCTION OF RATS AND MICE—YEAR 1945

Rats caught by Trappers	14,895
Rats bought	29
Total	14,924
Mice caught and destroyed	6,510

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGIST

Rats examined for Plague	14,924
Rats found infected with Plague	—
Immature Rats not examined	—

SPECIES

	Decumanus	*Rattus*	*Total*
Males	4,453	2,228	6,681
Females	5,181	3,062	8,243
Total	9,634	5,290	14,924

DESTRUCTION OF RATS AND MICE—YEAR 1946

Rats caught by Trappers	14,122
Rats bought	35
Total	14,157
Mice caught and destroyed	9,844

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGIST

Rats examined for Plague	14,157
Rats found infected with Plague	—
Immature Rats not examined	—

SPECIES

	Decumanus	*Rattus*	*Total*
Males	3,899	991	4,890
Females	6,684	2,583	9,267
Total	10,583	3,574	14,157

Anti-Mosquito Measures

The routine work of the Department directed towards the elimination of mosquito nuisance continued unabated during the years 1945 and 1946. There was no undue prevalence of mosquitoes, though the abandonment of certain camps in and about the City formerly used by the American Army made it imperative that extra vigilance be exercised to detect mosquito larvae in their earliest stages and so nip in the bud the commencement of a very troublesome condition.

In addition, the work of abating mosquito nuisance along the bed and at the mouth of the Maraval River undertaken by the Americans for the duration of the war, reverted once more to the Public Health Department and an additional gang had to be detailed to do this work.

I think it can be said with justice that mosquito nuisance is not a problem of any magnitude within the limits of the City and that by regular routine work carried out year in year out the City is kept fairly free of dangerous as well as troublesome mosquitoes.

Inspection of Eaves Gutters, &c., year 1945

Number of Inspections of Premises (Anti-Mosquito Unit)	73,805
Number of Inspections of Eaves Gutters	18,640
Number of occasions found in good order	16,549
Number of occasions found defective	2,091
Number of occasions found containing water	534
Number of occasions found containing water and larvae	410
*Number of occasions mosquito larvae were found in tubs, anti-formicas, tin cans, &c.	9,887
Yards cleared of receptacles	11,849

N.B.—*Occasions on which mosquito larvae were found by Sanitary Inspectors, during the course of 74,569 inspections of premises, are included in the above figure.

Inspection of Eaves Gutters, &c., year 1946

Number of Inspections of Premises (Anti-Mosquito Unit)	75,872
Number of Inspections of Eaves Gutters	33,687
Number of occasions found in good order	30,460
Number of occasions found defective	3,227
Number of occasions found containing water	644
Number of occasions found containing water and larvae	455
*Number of occasions mosquito larvae were found in tubs, anti-formicas, tin cans, &c.	10,642
Yards cleared of receptacles	3,456

N.B.—*Occasions on which mosquito larvae were found by Sanitary Inspectors, during the course of 75,456 inspections of premises, are included in above figure.

Larval Index

Year.	*Premises with mosquito larvae per cent. of number visited*
1938	2.58
1939	1.70
1940	1.45
1941	1.83
1942	2.94
1943	3.27
1944	5.4
1945	6.9
1946	7.3

(A) Premises and Occupations Controlled by Bye-laws and Regulations

FOOD

Food still remains the greatest single problem that this Department is faced with from a public health point of view.

It is true to say that good clean food still remains a rarity in the City of Port-of-Spain and though improvement has undoubtedly been achieved much leeway still remains to be made up. The handicap in the obtaining of suitable protective material and in the maintaining of clean uniforms and aprons, in the importing of equipment necessary for the proper storage of food, and in the building of proper groceries, shops and parlours, imposed by the War that was being waged has become considerable and the good start that was made at the outbreak of hostilities came practically to a standstill.

The work continues but it is hard uphill work ; education must go hand in hand with enforcement of the bye-laws, and sympathy and understanding on the part both of the sanitary inspector and the food vendor are essential basic prerequisites. There is need also for the tightening up of the law relating to unsound food with a view to eliminating the possibility of holding up foodstuffs, especially those of a perishable nature, until they go bad and must be condemned as unfit for human consumption, and the examination of imported foodstuffs at the time they are landed on the wharf is a crying necessity. Only by this means will the distribution of unsound food in the urban sanitary district cease and those periodic outbreaks of food poisoning diminish, for it is surprising what a comparatively high percentage of unsound processed foodstuff, particularly tinned foodstuff, arrives as such in the Colony.

Happily, at the moment I write, a new Food and Drugs Ordinance on the lines of the English Food and Drugs Act 1938 is being prepared and it is to be hoped that it will not be long before the preparation, storage and exposure of food for sale is put on a sound working public health basis.

Sale of Milk Bye-Laws, year 1945

DIARIES AND MILK SHOPS

Sub-District	*Cowshed Licences Issued*
City proper	—
East Dry River (unsewered)	—
Belmont (unsewered)	1
Woodbrook (partly unsewered)	4
St. James (unsewered)	16
Total 1945	21
Total 1944	14

DAIRYMENS' LICENCES

Dairymen Licences issued to cowkeepers and other purveyors of milk	21
Dairymen Licences issued to shops, milk bars and refreshment parlours	45
Total 1945	66
Total 1944	68

MILK VENDORS' LICENCE AND BADGES

City and Out-Districts	*Milk Vendors' Licences*	*Cows Tuberculin Tested*	*Badges*
Port-of-Spain	66	215	34
Out-Districts	53	160	63
Total 1945	119	375	97
Total 1944	115	132	73

Sale of Milk Bye-Laws, year 1946

DAIRIES AND MILK SHOPS

Sub-District	*Cowshed Licences Issued*
City proper	—
East Dry River (unsewered)	—
Belmont (unsewered)	1
Woodbrook (partly unsewered)	6
St. James	18
Total 1946	25
Total 1945	21

DAIRYMENS' LICENCES

Dairymen Licences issued to cow-keepers and other purveyors of milk	25
Dairymen Licences issued to shops, milk bars and refreshment parlours	63
Total 1946	88
Total 1945	66

MILK VENDORS' LICENCES AND BADGES

City and Out-Districts	*Milk Vendors' Licences*	*Cows Tuberculin Tested*	*Badges*
Port-of-Spain	88	204	37
Out-districts	84	141	96
Total 1946	172	345	133
Total 1945	119	375	97

Sale of Foodstuffs Bye-Laws, year 1945

REGISTRATION OF SHOPS, &c.

Provision, Meat and Spirit Shops, Restaurants, Hotels, Refreshement Parlours	229
Ground Provision and Fruit Shops	12
Bakehouses	15
Confectionery Shops	10
Aerated Water Factories	8
Other Factories	2
Total 1945	276
Total 1944	315

REGISTRATION OF VENDORS

Bread and Cakes	15
Confectionery	12
Cooked food including Fries, Souse, &c.	25
Meat, Fish and Cheese	6
Ice-Cream and Palets	32
Sweet Drinks	28
Vegetables, Greens, Fruits	40
Miscellaneous	15
Total 1945	173
Total 1944	211

Number of Badges issued to itinerant vendors	165 (210-1944)
Number of Oysters Vendors licensed under Sale of Oyster Byelaws	2 (13-1944)

Sale of Foodstuffs Bye-Laws, year 1946

REGISTRATION OF SHOPS, &c.

Provision, Meat and Spirit shops, Restaurants, Hotels, Refreshment Parlours	617
Ground Provision and Fruit Shops	45
Bakehouses	18
Confectionery Shops	14
Aerated Water Factories	7
Other Factories	9
Total 1946	710
Total 1945	276

REGISTRATION OF VENDORS

Bread and Cakes	52
Confectionery	25
Cooked food including Fries, Souse, &c.	83
Meat, Fish and Cheese	32
Ice-Cream and Palets	41
Vegetables, Greens, Fruits	316
Miscellaneous	91
Total 1946	640
Total 1945	175

Number of Badges issued to itinerant vendors	522 (1945-175)
Number of Oysters Vendors licensed under Sale of Oyster Byelaws	5 (1945-2)

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED, YEAR 1945

Under Part X of the Public Health Ordinance, Ch. 12 No. 4

Bread	...	...loaves	135	Milk (preserved—sweetened and unsweetened)	cases	...	357
Chocolate	...	...boxes	7		tins	...	1
Fish (fresh)	...	...pounds	1,249	Noodles	...	...	7
Fish (preserved)	...	...tins	192	Oats (rolled)	...	...	4
Meats (preserved) including ham and beef		tins ... 143 pounds ... 12,738		Sausage	...	...	138
Meats (fresh)	...	...pounds	69	Vegetables, including peas, Soups, &c.	tins packages	... ...	35 4

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED, YEAR 1946

Under Part X of the Public Health Ordinance, Ch. 12 No. 4

Bread and Cakes	...	...loaves	700	Milk (preserved—sweetened and unsweetened)	cases	...	77
Cornmeal	...	...bags	3		tins	...	13
Fish (fresh)	...	...pounds	895	Onions	...	...	...pounds ... 67,275
Fish (preserved)	...	tins ... 1,588 jars ... 222		Potatoes	barrels bags	... ...	226 310
Ice Cream Powders	...	...packages	237	Salt	...	...	...pounds ... 4,800
Macaroni	...	...packages	12	Sauce	...	...	...bottles ... 26
Malt	...	...bottles	12				
Meats (fresh) including beef and turtle		pounds ...	268	Unassorted Foodstuffs	...		cases ... 20 tins ... 180
Meats (preserved) including beef, Ham, sausage, &c.	...	cases ... 65 tins ... 868 pounds ... 223		Vegetables, including carrots, fruits, soups, &c.	...		crates ... 21 tins ... 558
				Yeast	...	...	...cases ... 45

(B) Premises used for Human Habitation, Houses Let in Lodgings, Common Lodging Houses.

No real improvement is yet noticeable in the housing situation; in fact the scarcity of housing accommodation for the increasing population of the City has never been more acute. And this in spite of the splendid efforts of the Slum Clearance Committee operating under the Slum Clearance and Housing (Temporary Provisions) Ordinance 1944. The Slum Clearance Areas declared under this latter Ordinance are being gradually replaced by 3 bedroom and 2 bedroom and 1 bedroom flats of modern design and what was once dilapidated and insanitary barracks and barrack ranges are now clean, sanitary 3-storey and 2-storey buildings with ample open spaces between them.

In fact the whole down town area east of Frederick Street is undergoing a change in appearance so great that it can truly be said that what was once a fanciful dream is slowly but surely becoming an accomplished fact. Even the owners of declared insanitary property which has not been acquired by the Commission and which is not likely to be acquired are tumbling over each other in their anxiety to reconstruct their premises and the only impediment to the wholesale rebuilding of the area is the lack of alternative accommodation. The Planning and Housing Commission are unable to proceed at a faster pace because of inability to find the necessary accommodation for housing the persons who must be displaced before demolition can proceed.

The building of more houses in the Morvant Settlement proceeds apace and, at the time I write, it has been announced that more houses in Morvant and a few in Port-of-Spain will soon be available to ease what is undoubtedly a tense and difficult situation. As regards the other parts of the City, it is true that new houses are being build by private enterprise, but the pace is almost snail-like because of inability to obtain the necessary materials and, unfortunately, in the City proper what was once a dwelling house is often replaced by a business place.

In the suburbs one often sees in the course of the daily round a new house being built, but almost invariably this house is not for rent but for sale only, and houses have been known to remain closed for a long period of time because of the desire on the part of the owner to sell at a good price.

The situation may be summed up, generally, by saying that it is at its very worst, that only an all-out drive can relieve it, but that because of the scarcity of materials and equipment which have caused many private contractors to shut down work on various projects, the chances of an early amelioration is very remote.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

(Unless otherwise stated, rates are per 1,000 population)

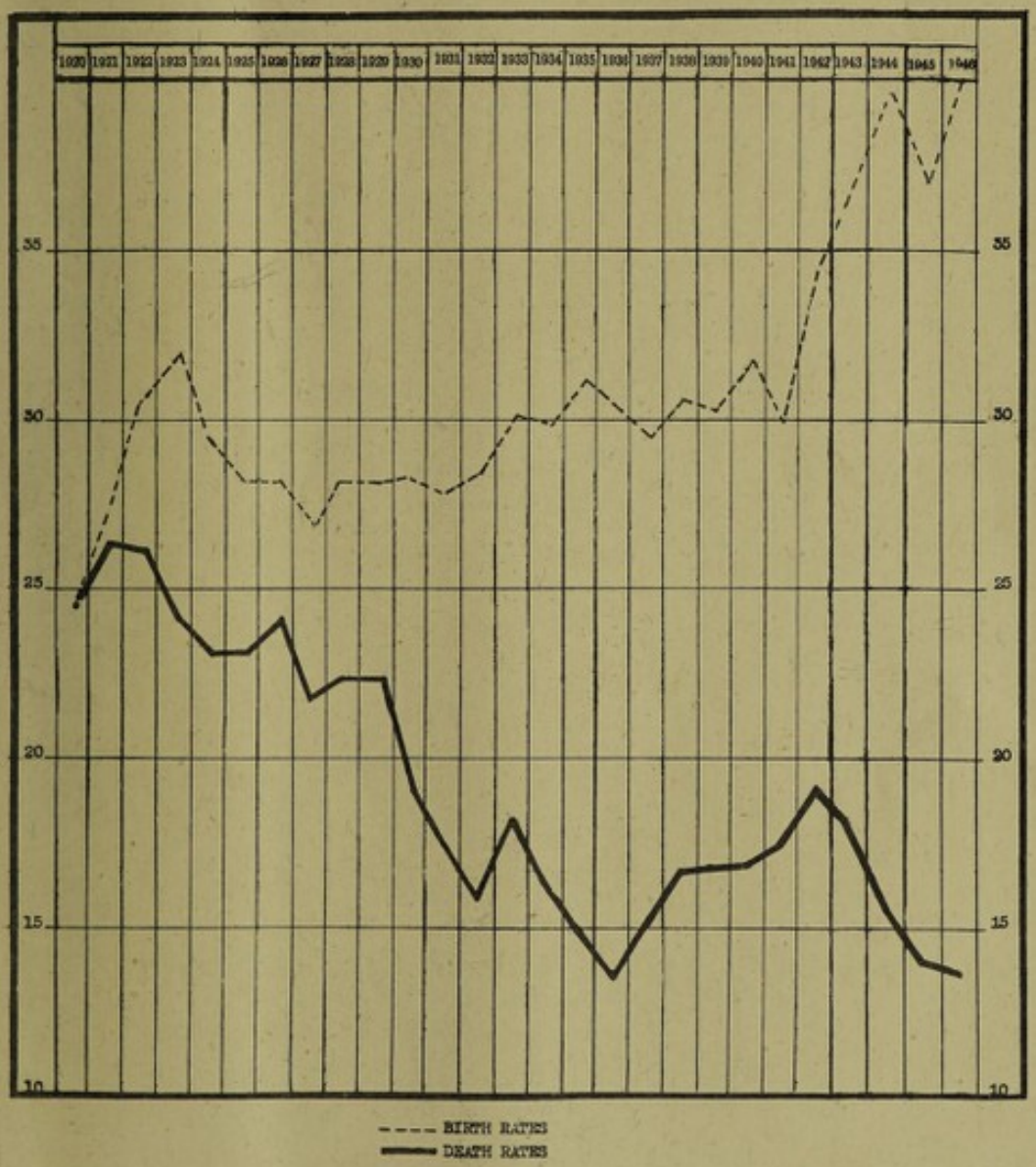
	1921	1944	1945	1946
Area of City Acres (pastures and open spaces included) ..	1,793	2,550	2,550	2,550
Estimated Population (Mean) ..	61,386	104,175	106,347	100,798
Density of Population (persons per acre)	34.2	41	42	40
Total Live Births	1,687	4,161	3,972	4,113
Birth Rate	27.28	39.95	37.34	41.00
Still Births Registered	154	265	224	225
*Still Birth Rate	91.3	63.69	56.39	54.44
Marriages Registered	534	1,308	1,133	1,170
Marriage Rate	8.64	12.56	10.65	11.61
Total Deaths	1,659	1,620	1,526	1,396
Death Rate	26.83	15.55	14.34	13.85
Natural Increase of Population ..	28	2,541	2,446	2,717
Deaths under one year	287	248	239	241
*Infant Mortality Rate	170.12	59.60	60.17	58.31
*Maternal Mortality Rate ..	—	2.64	3.02	1.45

*Per 1,000 births.

Chart A

Port-of-Spain

BIRTH-RATES and DEATH-RATES per 1,000 Population 1920-1946



VITAL STATISTICS OF THE DISTRICT.—CONTD.

Comparative Summary of Vital Statistics.—*Contd.*

Death Rates :	1921	1944	1945	1946
Notifiable Infectious Diseases ..	6.21	2.71	2.47	2.45
Pulmonary Tuberculosis ..	2.49	1.52	1.41	1.57
Tuberculosis (other forms) ..	.26	.10	.12	.14
Enteric Fever	1.25	.09	.09	.08
Pneumonia (all Forms)	1.97	.93	.74	.61
Bronchitis	1.36	.41	.41	.33
Diphtheria	.02	.03	.05	.02
Malaria	.89	.21	.14	.12
Syphilis	.21	.35	.21	.20
Diarrhoea and Enteritis ..	1.91	.55	.39	.51
Influenza	.26	.02	.02	.03
Ankylostomiasis	.15	.01	.02	—
Bright's Disease and Nephritis ..	2.09	.79	.76	.43
Diseases of the Heart and Blood Vessels	2.65	2.78	2.21	2.02
Diseases of the Nervous System including Cerebral Haemorrhage	1.70	1.79	1.66	1.47
Cancer and other Malignant Diseases	.63	.81	.75	.78

* Census Population of City April, 1946 : 93,198.
Estimated Population of City to 31st December, 1946 : 94,097.
Colony's Mean Population : 562,301.

Births and Birth Rates—Deaths and Death Rates

The birth rates for the years 1945 and 1946 which worked out at 37.34 and 41.00 per 1,000 population, respectively, are the highest ever recorded since the establishment of the Local Authority in 1917.

Similarly the death rates for the years 1945 and 1946, 14.34 and 13.85 per 1,000 population, respectively, are the lowest ever recorded. If the death rates are distributed over the various subdistricts of the City, it will be observed that the highest death rate 13.81 per 1,000 population is again recorded in the East Dry River district.

This is a finding which has remained constant during the last decade and is undoubtedly associated with the overcrowding, poor sanitation, unsatisfactory drainage and general poverty of the area. I repeat again the Belmont and the East Dry River Districts, but the East Dry River District particularly, are in need of a comprehensive scheme of major works of drainage, road making and road widening, and sewering which should be undertaken in the same way that the St. James Improvement Scheme was undertaken, *i.e.*, as a joint effort by landlords, Government and City Council, and only when this is done, will the much needed improvement that is long overdue in this area be effected.

Births, 1945				Deaths, 1945			
Males	Females	Both Sexes	Birth Rate per 1,000 population	Males	Females	Both Sexes	Death Rate per 1,000 population
1,999	1,973	3,972	37.34	816	710	1,526	14.34

Deaths in Sub-districts of the City, 1945

Sub-District	Mean Population	Deaths — Place of Occurrence				Total Deaths in Sub-district	Rate per 1,000 population
		Home, &c.	Colonial Hospital	Royal Gaol	House of Refuge		
City Proper	36,589	193	200	11	—	404	11.04
St. Clair	1,783	12	2	—	—	14	7.85
East Dry River	23,604	220	145	—	—	365	15.46
Belmont	18,389	139	78	—	—	217	11.80
Woodbrook	13,495	95	31	—	—	126	9.34
St. James	12,487	117	66	—	217	400	32.03
Total	106,347	776	522	11	217	1,526	14.34

Age Distribution of Deaths, 1945

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	122	117	239	15.66
1- 5 years	37	34	71	4.65
6-10 do.	7	4	11	.72
11-20 do.	27	36	63	4.13
21-30 do.	49	50	99	6.49
31-40 do.	86	56	142	9.31
41-50 do.	97	65	162	10.62
51-60 do.	101	77	178	11.66
Over 60 years	290	271	561	36.76
Total	816	710	1,526	—

Births—1946				Deaths—1946			
Males	Females	Both Sexes	Birth Rate per 1,000 population	Males	Females	Both Sexes	Death Rate per 1,000 population
2,057	2,076	4,133	41.00	692	704	1,396	13.85

Deaths, in Sub-districts of the City, 1946

Sub-District	Mean Population	Deaths — Place of Occurrence				Total Deaths in Sub-district	Rate per 1,000 population
		Home, &c.	Colonial Hospital	Royal Gaol	House of Refuge		
City Proper	34,680	186	216	7	—	409	11.80
St. Clair	1,690	7	3	—	—	10	5.98
East Dry River	22,372	178	131	—	—	309	13.81
Belmont	17,429	140	77	—	—	217	12.51
Woodbrook	12,791	91	31	—	—	122	9.54
St. James	11,836	131	42	—	156	329	*29.12
Total	100,798	733	500	7	156	1,396	13.85

* *See* Table : " Comparison of Death Rates ".

Age Distribution of Deaths, 1946

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	135	106	241	17.26
1- 5 years	48	29	77	5.52
6-10 do.	8	5	13	0.93
11-20 do.	23	29	52	3.72
21-30 do.	43	54	97	6.95
31-40 do.	61	56	117	8.38
41-50 do.	77	70	147	10.53
51-60 do.	80	79	159	11.39
Over 60 years	217	276	493	35.32
Total	692	704	1,396	—

Comparison of Deaths at different Age periods, 1928-46

Period	Total Deaths at All Ages	Deaths under 1 year		Deaths 1-5 years		Deaths 56-60 years		Deaths over 60 years	
		No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths	No.	Percentage of Total Deaths
Yearly Averages :									
1928-32 ...	1,327	230	17.42	81	6.06	94	7.09	336	25.10
1933-37 ...	1,167	215	18.24	62	5.29	87	7.57	289	24.74
1938	1,410	204	14.46	69	4.89	107	7.58	484	34.33
1939	1,516	242	15.96	56	3.69	108	7.13	539	35.55
1940	1,568	291	18.56	59	3.76	101	6.44	564	35.97
1941	1,705	314	18.42	85	4.99	113	6.63	594	34.84
1942	1,912	322	16.84	71	3.71	157	8.21	648	33.90
1943	1,862	283	15.20	102	5.48	131	7.04	674	36.20
1944	1,620	248	15.31	77	4.75	106	6.54	598	36.92
1945	1,526	239	15.66	71	4.65	86	5.64	561	36.76
1946	1,396	241	17.26	77	5.52	95	6.81	493	35.32

Comparison of Death Rates, 1945

	No. of Deaths	Death Rate per 1,000 population
(1) City (St. James excluded)	1,126	12.00
(2) City, including St. James	1,526	14.34
(3) City, as in (2), but omitting House of Refuge	1,309	12.38
(4) St. James (House of Refuge excluded)	183	15.46

Comparison of Death Rates, 1946

	No. of Deaths	Death Rate per 1,000 population
(1) City (St. James excluded)	1,067	11.99
(2) City, including St. James	1,396	13.85
(3) City, as in (2), but omitting House of Refuge	1,240	12.38
(4) St. James (House of Refuge excluded)	173	15.46

Chart B
Port-of-Spain

Principal Individual CAUSES OF DEATHS—1945

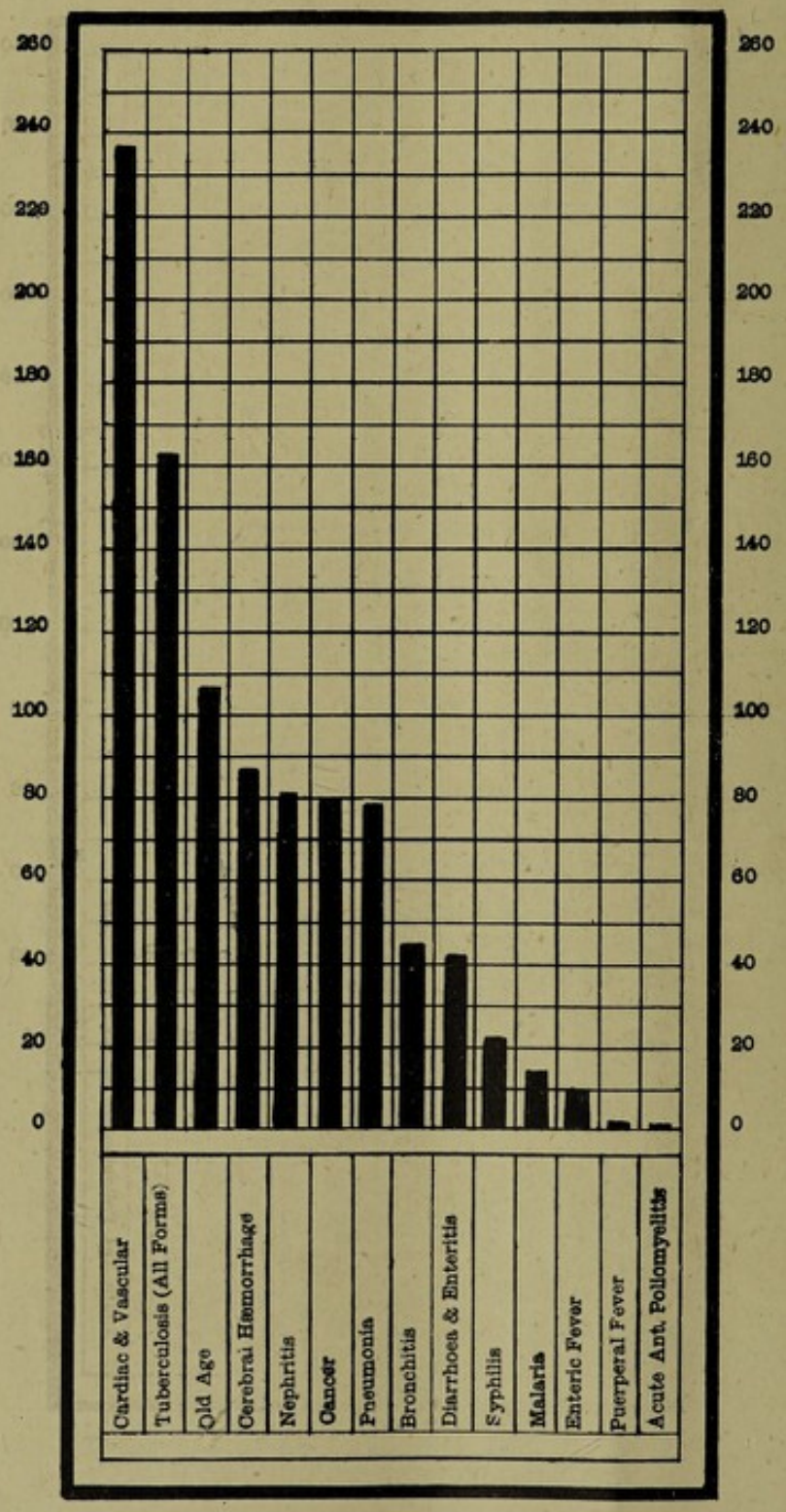
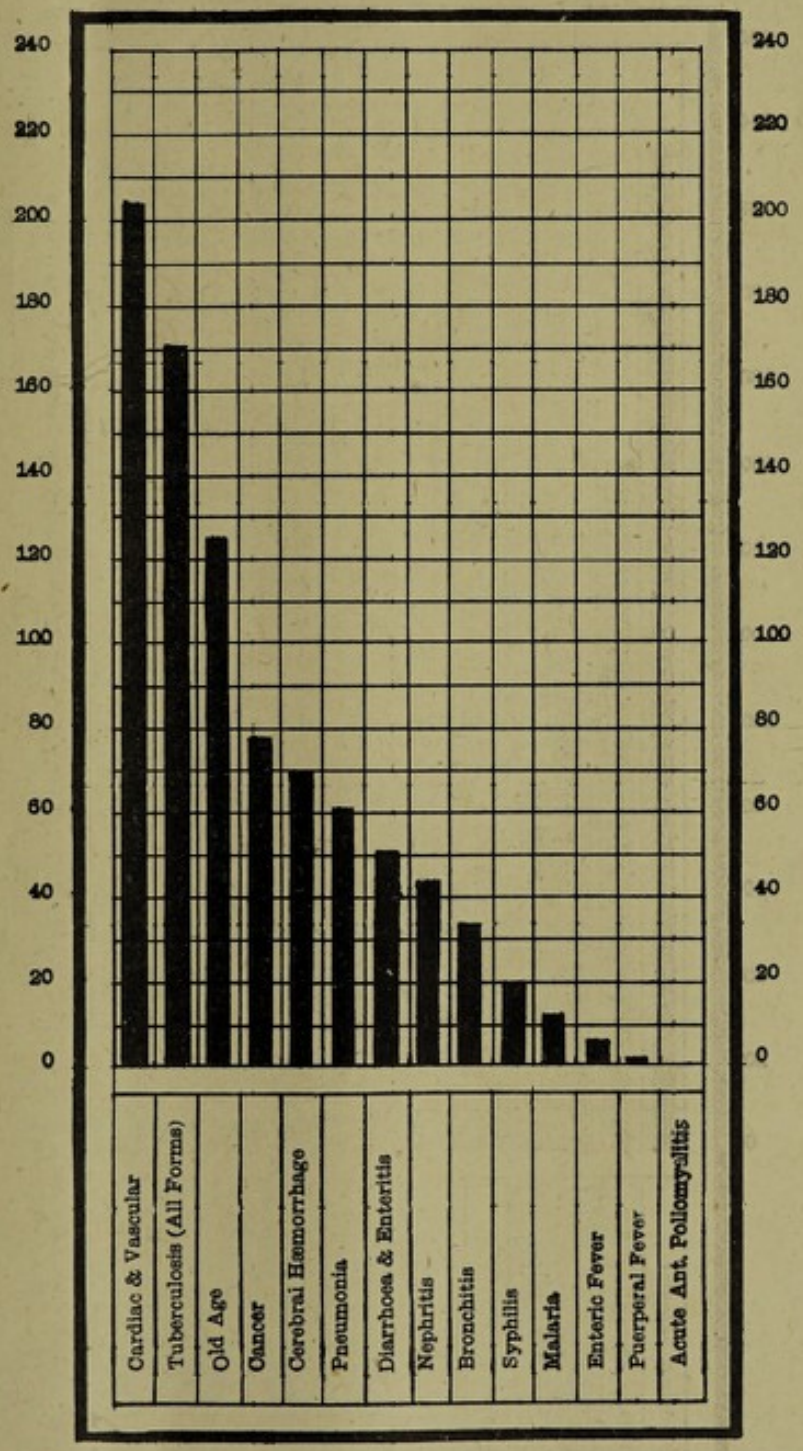


Chart C
Port-of-Spain

Principal Individual CAUSES OF DEATHS—1946



Causes of Deaths

Diseases of the heart and blood vessels again occupy pride of place in the list of causes of death, a fact which is being constantly recorded in all civilised countries of the world. What is the cause of this heavy toll of human life? This is by no means clear; there are some definite diseases like syphilis, rheumatic fever, that affect the delicate tissues of the heart, but in the case of a large number of diseases of the heart and circulatory system no definite cause is apparent for the great damage that is suffered by these structures. Again, treatment is not entirely satisfactory in the majority of cases of heart disease, and it is obvious that the only profitable line is a campaign of health education directed towards the instruction of the public in measures for the protection of the heart and vascular tissue from disease, stress, and strain.

Second in the list comes pulmonary tuberculosis with a toll of 150 and 158 victims in 1945 and 1946, respectively, and next diseases of early infancy and of the nervous system and organs of special sense in that order.

Causes of Deaths, 1945

I.—General Diseases

(a) Notifiable Infectious Diseases	
Enteric Fever	10
Diphtheria	5
Membranous Croup	—
Pulmonary Tuberculosis	150
Tuberculosis (other forms)	13
Pneumonia (all forms)	79
Ophthalmia Neonatorum	—
Plague	—
Cholera	—
Small Pox	—
Typhus Fever	—
Yellow Fever	—
Encephalitis Lethargica	1
Acute Poliomyelitis	1
Acute Ascending Myelitis	—
Cerebro-Spinal Fever	2
Puerperal Fever	2
Anthrax	—
	263
(b) Non-Notifiable Infectious Diseases.	
Malaria	15
Whooping Cough	6
Influenza	2
Measles	—
Dysentery	5
Ankylostomiasis	2
Syphilis	22
Other Veneral Diseases	4
Black Water Fever	—
	56

II.—Other Diseases

(a) General Diseases not included above.	
Cancer and other Malignant Disease	80
Pellagra	—
Scurvy Rickets	—
Leprosy	—
Other General Diseases	67
	147
(b) Diseases of the Nervous System and Organs of Special Sense	
Simple Meningitis	10
Cerebral Haemorrhage	86
Apoplexy	1
Convulsions of Children under 5 years	7
Other diseases of the Nervous System	73
	177
(c) Diseases of the Circulatory System	
Cardiac and Vascular Diseases	235
Other Circulatory Diseases	8
	243
(d) Diseases of the Respiratory System.	
Bronchitis	44
Other diseases of the Respiratory System	36
	80
(e) Diseases of the Digestive System	
Diarrhoea and Enteritis	42
Cirrhosis of Liver	14
Other disease of the Digestive System	61
	117
(f) Non-Venereal Diseases of the Genito-Urinary System.	
Bright's Diseases	—
Nephritis	81
Other Non-Venereal Diseases	48
	129
(g) Diseases of the Puerperal State. (Other than Puerperal Fevers)	
Puerperal Eclampsia	2
Puerperal Haemorrhage	3
Other Puerperal Diseases	5
	10
(h) Diseases of Early Infancy	141
(i) Old Age	107
(j) Affections produced by External Causes.	
Burns and Scalds	7
Accidents and Injuries	34
	41
(k) Other Causes of Death	15
Grand Total	1,526

Causes of Deaths, 1946

I.—General Diseases

(a) Notifiable Infectious Diseases.	
Enteric Fever	8
Diphtheria	2
Membranous Croup	—
Pulmonary Tuberculosis	158
Tuberculosis (other forms)	14
Pneumonia (all forms)	61
Ophthalmia Neonatorum	—
Plague	—
Cholera	—
Small Pox	—
Typhus Fever	—
Yellow Fever	—
Encephalitis Lethargica	1
Acute Poliomyelitis	—
Acute Ascending Myelitis	—
Cerebro-Spinal Fever	2
Puerperal Fever	1
Anthrax	—
	247
(b) Non-Notifiable Infectious Diseases.	
Malaria	12
Whooping Cough	—
Influenza	3
Measles	—
Dysentery	5
Ankylostomiasis	—
Syphilis	20
Other Venereal Diseases	2
Black Water Fever	—
	42

II.—Other Diseases

(a) General Diseases not included above.	
Cancer and other Malignant Diseases	79
Pellagra	1
Scurvy Rickets	2
Leprosy	—
Other General Diseases	52
	134

Causes of Deaths 1946.—*Continued.*

II.—Other Diseases.—*Contd.*

(b) Diseases of the Nervous System and Organs of Special Sense.		
Simple Meningitis		12
Cerebral Haemorrhage		68
Apoplexy		2
Convulsions of Children under 5 years		5
Other diseases of the Nervous System		61
		148
(c) Diseases of the Circulatory System.		
Cardiac and Vascular Diseases		204
Other Circulatory Diseases		9
		213
(d) Diseases of the Respiratory System.		
Bronchitis		33
Other diseases of the Respiratory System		24
		57
(e) Diseases of the Digestive System.		
Diarrhoea and Enteritis		51
Cirrhosis of Liver		4
Other disease of the Digestive System		55
		110
(f) Non-Venereal Diseases of the Genito-Urinary System.		
Bright's Disease		—
Nephritis		43
Other Non-Venereal Diseases		37
		80
(g) Diseases of the Puerperal State (Other than Puerperal Fevers)		
Puerperal Eclampsia		—
Puerperal Haemorrhage		—
Other Puerperal Diseases		5
		5
(h) Diseases of Early Infancy		152
(i) Old Age		126
(j) Affections produced by External Causes.		
Burns and Scalds		6
Accidents and Injuries		34
		40
(k) Other Causes of Death		42
Grand Total		1,396

INFANT MORTALITY

It is with some satisfaction that I record the infant mortality rates of 60.17 and 58.31 per 1,000 live births for the years 1945 and 1946; indeed the infant mortality rate for the past five years has shewn year by year a steady decline to the present rate of 58.31 per 1,000 live births which is the lowest on record. In so far as this indicates a raising of the standard of sanitary intelligence of the community, better maternal and ante-natal care, more skilled obstetric services and a higher level of environmental hygiene, there should indeed be satisfaction but we must not be blinded to the fact that a great leeway still remains to be made up and that much lower rates are recorded in more advanced cities of equal size in temperate and subtropical climes.

When the rate is subjected to critical analysis it will be observed that at least 47.72 per cent. of the mortality can be attributed to diseases and malformations of ante-natal origin, 11.20 per cent. to diseases, deformities and accidents of intra-natal origin and 41.08 per cent. to diseases of post-natal origin. It need hardly be stated that as the diseases and conditions of post-natal origin are brought under control, the percentage attributable to intra-natal and ante-natal causes rises, but that 41.08 per cent. of the mortality can actually be caused by diseases acquired in the post-natal period is, to say the least, disturbing. It means that much more progress in shielding the newly-born infant from the ravages of post-natal infections is urgently called for, for what can be gained from better ante-natal and maternal care and more skilled intra-natal attention is easily lost by infection in the post-natal period.

In general, it may be stated that whilst all agencies connected with maternal and infant care are beginning to see the fruit of their labours in this field, greater efforts in all directions are needed. It is particularly important that those diseases of parents, those maternal deformities and diseases of pregnancy, those accidents and infections of confinement which are the result of inadequate and inefficient ante-natal care and of delayed and unskilled midwifery services should receive urgent consideration with a view to lessening the toll of infant life that they exact.

Births and Deaths of Infants under 1 year, 1917-46

Period	No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	1,770	412	232.77
Yearly Averages:			
1918-22	1,700	310	182.94
1923-27	1,862	274	146.96
1928-32	1,925	230	119.13
1933-37	2,248	215	96.05
Average 1918-37	1,901	288	155.57
Year 1938	2,591	204	78.73
1939	2,752	242	87.94
1940	2,937	291	99.08
1941	2,888	314	108.73
1942	3,399	322	94.73
Average 1938-42	2,913	275	93.84
Year 1943	3,751	283	75.45
1944	4,161	248	59.60
1945	3,972	239	60.17
1946	4,133	241	58.31

Chart D
Port-of-Spain

INFANT MORTALITY RATES—per 1,000 Live Births, 1917-1946

Causes of Deaths under 1 year, 1945

Causes of Deaths	Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total Infant Mortality
Ante-Natal Causes:				
Prematurity	52	12	64	
Congenital Debility	23	5	28	
Marasmus	—	14	14	
Malnutrition	1	6	7	
Congenital Abnormalities	1	1	2	
Congenital Syphilis	1	2	3	
Other Ante-Natal Causes	6	—	6	
Total Ante-Natal	84	40	124	51.88
Intra-Natal Causes:				
Asphyxia Neonatorum	5	—	5	
Cerebral Haemorrhage	6	—	6	
Atelectasis	3	—	3	
Umbilical Haemorrhage	2	—	2	
Internal Haemorrhage	2	—	2	
Total Intra-Natal	18	—	18	7.53
Post Natal Causes:				
Pneumonia	10	17	27	
Diarrhoea and Enteritis	2	18	20	
Bronchitis	1	12	13	
Icterus Neonatorum	5	1	6	
Pulmonary Congestion	—	1	1	
Influenza	—	1	1	
Convulsions	1	2	3	
Colitis	1	—	1	
Diphtheria	—	1	1	
Pulmonary Tuberculosis	—	1	1	
Meningitis	—	2	2	
Tuberculous Meningitis	—	1	1	
Whooping Cough	—	4	4	
Malaria	—	2	2	
Miliary Tuberculosis	—	1	1	
Other Post-Natal Causes	2	8	10	
Total Post-Natal	22	72	94	39.33
Ill-Defined Causes:				
Unknown	2	1	3	1.26
Grand Total	126	113	*239	—

* M. 122, F. 117

Causes of Deaths under 1 year, 1946

Causes of Deaths	Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total Infant Mortality
Ante-Natal Causes:				
Prematurity	63	3	66	
Congenital Debility	18	3	21	
Marasmus	—	15	15	
Malnutrition	—	3	3	
Congenital Abnormalities	2	1	3	
Congenital Heart Disease	2	2	4	
Congenital Syphilis	2	1	3	
Total Ante-Natal	87	28	115	47.72
Intra-Natal Causes:				
Asphyxia Neonatorum	9	—	9	
Cerebral Haemorrhage	6	—	6	
Atelectasis	3	—	3	
Umbilical Haemorrhage	4	—	4	
Internal Haemorrhage	5	—	5	
Total Intra-Natal	27	—	27	11.20
Post-Natal Causes:				
Pneumonia	2	13	15	
Diarrhoea and Enteritis	5	21	26	
Bronchitis	3	8	11	
Icterus Neonatorum	4	1	5	
Pulmonary Congestion	2	1	3	
Influenza	—	—	—	
Convulsions	—	1	1	
Dysentery	—	1	1	
Diphtheria	—	1	1	
Tuberculsois (All forms)	—	7	7	
Meningitis	—	3	3	
Cerebro Spinal Fever	1	1	2	
Other Post-Natal Causes	5	19	24	
Total Post-Natal	22	77	99	41.08
Grand Total	136	105	*241	

* M. 135, F. 106.

Duration of Life of Infants dying under one year of Age, 1945

Duration of Life	No. of Infants	Percentage of total deaths under 1 year	Corresponding percentage 1944
Under 1 day	50	20.92	14.52
1 day and under 2 weeks	65	27.20	26.61
2 weeks and under 1 month	11	4.60	6.05
Total under 1 month	126	52.72	47.18
1 month to 3 months	40	16.74	20.57
Over 3 to 5 months	20	8.37	8.06
Over 5 to 7 months	22	9.20	10.08
Over 7 to 9 months	16	6.69	8.47
Over 9 to 11 months	15	6.28	5.24
Over 11 and under 1 year	—	—	0.40
Total	239	—	—

Duration of Life of Infants dying under one year of Age, 1946

Duration of Life	No. of Infants	Percentage of total deaths under 1 year	Corresponding percentage 1945
Under 1 day	35	14.52	20.92
1 day and under 2 weeks	89	36.93	27.20
2 weeks and under 1 month	12	4.98	4.60
Total under 1 month	136	56.43	52.72
1 month to 3 months	38	15.77	16.74
Over 3 to 5 months	17	7.05	8.37
Over 5 to 7 months	20	8.30	9.20
Over 7 to 9 months	11	4.56	6.69
Over 9 to 11 months	19	7.88	6.28
Over 11 and under 1 year	—	—	—
Total	241	—	—

Neo-Natal Mortality (Deaths under 1 month), 1930-46

Period	No. of Deaths under 1 month	Percentage of total deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Births
Yearly Average: 1930-34	9.06	38.60	44.03
Year **1935**	91	50.28	39.24
1936	61	40.94	26.58
1937	110	46.41	48.39
1938 **1938**	117	57.35	45.16
1939	122	50.41	44.33
Average 1935-39	100.2	49.08	40.74
Year **1940**	132	45.36	44.94
1941	137	43.63	47.44
1942	134	41.62	39.42
1943	134	47.35	35.72
1944	117	47.18	28.12
1945	126	52.72	31.72
1946	136	56.43	32.91

STILL BIRTHS

Still births represent a wastage of human life that would in large measure be preventable if the exact causes were diagnosed in pregnancy and the appropriate treatment given by bringing the pregnant female early under skilled care. Diseases of mother and father in which syphilis plays a large part, deformities of mother and malformations of the foetus, diseases and accidents of pregnancy, are the main causes.

The still birth rate for 1946 is the lowest recorded for the past decade.

Still Births

Year	Total Still Births	Rate per 1,000 Live Births
1946	225	54.44
1945	224	56.39
1944	265	63.69
1943	230	61.32
1942	257	75.61
1941	211	73.06
1940	214	72.86
1939	190	69.04
1938	171	66.00

THE PRE-SCHOOL CHILD

It is my duty once again to bring to the notice of those interested in the health and welfare of the growing child the great need for the efficient supervision of the pre-school child. The importance of this period in the child's life seems to have been almost completely forgotten; a little thought will make us realize that this is a most vulnerable period and that great damage, sometimes even irreparable damage, is done by diseases which are very often easily preventable and nearly always capable of successful treatment. It would seem that at about the age of 18 months to 2 years the child is lost in a hiatus where there is neither skilled supervision nor efficient care to bridge this very delicate period and where infectious and contagious diseases find ready soil.

Very often when the child enters school at five, it is discovered that all the care lavished in the post-natal period has been allowed to run to waste and the physical ravages of disease have been allowed to take their toll. The death rate also is not by any means negligible and an examination of the table hereunder listed will reveal the fact that communicable disease has been responsible for the highest mortality, with disease of the digestive system next.

Causes of Death at Ages, 1-5, 1945

Groups	Group Total	Percentage of Total Mortality at ages 1-5
Diseases &c., attributable to Ante-Natal Causes :		
Marasmus 3, Congenital Debility 1, Malnutrition 1, Hyperspadias 1 ...	6	8.45
Communicable Diseases :		
Pneumonia 13, Tuberculosis 10, Diphtheria 4, Whooping Cough 2, Dysentery 1	30	42.25
Diseases of the Nervous System :		
Convulsions 5, Meningitis 1	6	8.45
Diseases of the Respiratory System :		
Bronchitis 8, Pulmonary Congestion 2	10	14.08
Diseases of the Digestive System :		
Diarrhoea and Enteritis 9, Colitis 3	12	16.90
Other Causes :		
Burns 2, Abscesses and Tumours 2, Injuries 1, Tetanus 1, Uraemia 1 ...	7	9.86
Total	* 71	—

* M. 34, F. 37.

Causes of Death at Ages 1-5, 1946

Groups	Group Total	Percentage of Total Mortality at ages 1-5
Diseases &c., attributable to Ante-Natal Causes :		
Marasmus 5, Debility 2, Hydrocephalus 2, Malnutrition 2	11	14.29
Communicable Diseases :		
Pneumonia 10, Tuberculosis 6, Malaria 5, Diphtheria 1, Dysentery 1 ...	23	29.87
Diseases of the Nervous System :		
Convulsions 4, Meningitis 4, Mental Deficiency 1	9	11.69
Diseases of the Respiratory System :		
Bronchitis 5, Pulmonary Congestion 1	6	7.79
Diseases of the Digestive System :		
Diarrhoea and Enteritis	15	19.48
Other Causes :		
Injuries 3, Nephritis 3, Burns 2, Leukaemia 2, Natural Causes 1, Poisoning 1 Toxaemia 1	13	16.88
Total	*77	—

* M. 48, F. 29.

MATERNAL MORTALITY

The maternal mortality rate for 1946 showed a welcome reduction on that for the past five previous years, in fact it is the lowest on record—1.45 per 1,000 live births.

Though this rate is low, no effort should be spared to reduce it further until the figure of zero is recorded. When one remembers that child bearing is a physiological function, it is an axiom to state that there should be no mortality associated with it and this is particularly true when the causes of maternal deaths listed below are analysed.

It should be possible by proper supervision, skilled ante-natal care and efficient maternity services to prevent all the diseases that usually cause the death of so many mothers, with the possible exception of criminal abortion and even here proper education and a better social order can undoubtedly have a bettering influence.

Causes of Maternal Deaths, 1945

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births	
						1945	Average 1940-44
Puerperal Sepsis	—	—	1	1	2	.50	1.05
Eclampsia	—	—	2	—	2	.50	.78
Haemorrhage	—	1	2	—	3	.76	.59
Pernicious Vomiting	—	—	—	—	—	—	.07
*Other Causes	—	1	1	3	5	1.26	1.44
Total	—	2	6	4	12	3.02	3.93

* "Other Causes" include Ectopic Gestation, Septic Abortion, Caesarian Hysterectomy.

Causes of Maternal Deaths, 1946

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births 1946	Rate per 1,000 Births Average 1941-45
Puerperal Sepsis	—	1	—	—	1	0.24	0.95
Eclampsia	—	—	—	—	—	—	0.74
Haemorrhage	—	—	—	—	—	—	0.54
Pernicious Vomiting	—	—	—	—	—	—	0.07
*Other Causes	—	1	4	—	5	1.21	1.42
Total	—	2	4	—	6	1.45	3.72

* "Other Causes" include Abortion and Retained Placenta.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

There are at present 20 notifiable infectious diseases. They are diphtheria, membranous croup, enteric fever, pulmonary tuberculosis, tuberculosis (other forms), pneumonia, ophthalmia neonatorum, chicken pox, encephalitis lethargica, cerebro-spinal fever, acute anterior poliomyelitis (infantile paralysis), acute ascending myelitis and puerperal fever, in addition to plague, cholera, yellow fever, small pox (including alastrim), typhus fever, typhoid fever and anthrax which are dangerous infectious diseases and are quarantinable. Typhoid fever and anthrax were proclaimed dangerous infectious diseases in 1937 and 1938 respectively—*Royal Gazette* 30th July, 1937 and 2nd June, 1938.

It is a statutory duty imposed on all registered practitioners to notify to the Local Authority at the earliest possible opportunity any one of the notifiable diseases which occur in their practice and it is a punishable offence not to notify even when there is only the suspicion that the disease is present. The purpose of this legal obligation is to enable the Local Authority to institute at the earliest opportunity measures for the prevention of "contact" cases of the infectious diseases listed above and to see that the case itself is properly isolated and given prompt and efficient treatment.

With this object in view the Local Authority urges upon all practitioners in the Urban Sanitary District the necessity to co-operate by notifying all cases of notifiable infectious diseases that come under their notice. In addition to the achievement of the objectives which I have just detailed these notifications are essential to the compilation of accurate statistics which is one of the main functions of the Local Health Authority.

Cases of infectious diseases notified during the years 1945 and 1946 number 570 and 550 respectively and were greater than the number of cases, 418, notified during the year 1944 but less than the number notified in the two previous years 1943 and 1942—614 and 611, respectively. The number of deaths certified to these diseases was 263 and 247, respectively.

Analysis of these returns shews that the largest number of notifications and of deaths in 1945 was of pulmonary tuberculosis with 206 cases and 150 deaths, but in 1946 chicken pox with 196 cases occupied pride of place in the list of notifications and pulmonary tuberculosis again with 158 deaths topped the mortality list. Every now and then, an outbreak of chicken pox occurs in the urban sanitary district, generally mild without any mortality, but the toll of human life taken by pulmonary tuberculosis is distressingly constant with no signs of any dimunition. In fact, as the campaign for the detection, control, and treatment of pulmonary tuberculosis gets under way more and more cases are likely to be uncovered. It has been estimated that at least three times the number of cases notified actually reside within the limits of the urban sanitary district.

Next in frequency of numbers come cases of pneumonia with 118 and 87 notifications and 79 and 61 deaths in 1945 and 1946 respectively. It is curious that the number of deaths certified is so high compared with the number of notifications and it can only mean that only a certain percentage of the cases of pneumonia actually occurring gets notified, seeing that nowadays, thanks to the sulphonamide group of drugs and to penicillin, the mortality attributable to the pneumonias has been considerably reduced.

Enteric fever returns showed on the whole low figures, 55 and 37 cases with 10 and 8 deaths, respectively. Whilst the situation cannot be considered unsatisfactory, the aim of this Public Health Department is to reduce this figure to nil, to achieve which, efforts must be directed to the hygiene of food which, in the writer's opinion, is the main cause of cases of typhoid fever within the limits of the City.

As regards distribution in the various sub-districts, the East Dry River District again furnished the largest number of notifications and the greatest number of deaths per 1,000 population than any of the other sub-districts—a fact which has been apparent for the past 10 years now and which is only to be expected in view of the well-known insanitary state of that particular area.

Infectious Diseases—Notifications and Deaths—1936 to 1946

Infectious Diseases	Notifications				Deaths			
	Average 1936-40	Average 1941-45	1945	1946	Average 1936-40	Average 1941-45	1945	1946
Diphtheria	33.2	25.4	20	22	3	3.4	5	2
Enteric Fever	56.6	43.6	55	37	11	11.4	10	8
Pulmonary Tuberculosis ...	147.6	168.8	206	173	134.8	143.2	150	158
Tuberculosis (Other forms)	9.2	11.4	17	7	12.4	8.4	13	14
Pneumonia (All forms)	119	189.6	118	87	75	113	79	61
Ophthalmia Neonatorum	21.6	16	13	11	0.2	—	—	—
Chicken Pox	80.8	47.6	122	196	—	—	—	—
Encephalitis Lethargica	0.2	—	—	—	—	0.8	1	1
Acute Ant. Poliomyelitis	3.2	8.2	—	1	0.2	1.8	1	—
Puerperal Fever	—	12.6	17	14	—	3.2	2	1
Cerebro-Spinal Fever	—	0.8	2	2	—	0.6	2	2
Total	471.4	524	570	550	236.6	285.8	263	247
Rate per 1,000 population	5.70	5.15	5.36	5.46	2.84	2.81	2.47	2.45

Chart E
Port-of-Spain

INFECTIOUS DISEASES—Notifications and Deaths, 1922-1946

Distribution of Cases and Deaths from Notifiable Infectious Disease, 1945

Diseases	City Proper		St. Clair		East Dry River		Belmont		Woodbrook		St. James	
	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths
Diptheria	6	3	1	—	2	—	6	—	2	1	3	1
Enteric Fever	16	2	1	—	16	4	12	1	—	1	10	2
Pulmonary Tuberculosis ...	63	44	—	—	62	52	47	24	14	16	20	14
Tuberculosis (Other forms)...	4	3	—	—	5	5	6	4	1	1	1	—
Pneumonia (All forms) ...	31	23	—	—	49	26	22	11	7	6	9	13
Opthalmia Neonatorum ...	2	—	—	—	5	—	6	—	1	—	—	—
Chicken Pox	63	—	2	—	24	—	17	—	7	—	8	—
Cerebro-Spinal Fever ...	—	—	—	—	—	—	1	1	—	—	1	1
Acute Poliomyelitis ...	—	—	—	—	—	1	—	—	—	—	—	—
Puerperal Fever	3	—	—	—	5	1	—	1	5	—	2	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	1	—	—	—	—
Total	188	75	4	—	168	89	119	43	37	25	54	31
Rate per 1,000 population in each sub-district ...	5.14	2.05	2.24	—	7.12	3.77	6.47	2.34	2.74	1.86	4.32	2.48

Distribution of Cases and Deaths from Notifiable Infectious Disease, 1946

Diseases	City Proper		St. Clair		East Dry River		Belmont		Woodbrook		St. James	
	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths
Diphtheria	6	1	—	—	3	1	5	—	6	—	2	—
Enteric Fever	7	1	—	—	14	3	4	—	2	—	10	4
Pulmonary Tuberculosis ...	61	54	—	—	46	45	30	25	12	14	24	20
Tuberculosis (Other forms)...	1	4	—	—	3	4	3	2	—	1	—	3
Pneumonia (All forms) ...	22	17	—	1	27	19	21	11	4	6	13	7
Ophthalmia Neonatorum ...	4	—	—	—	4	—	2	—	—	—	1	—
Chicken Pox	57	—	1	—	52	—	47	—	25	—	14	—
Cerebro-Spinal Fever ...	—	—	—	—	1	1	1	1	—	—	—	—
Acute Poliomyelitis ...	—	—	—	—	1	—	—	—	—	—	—	—
Puerperal Fever	4	—	—	—	3	—	4	1	2	—	1	—
Encephalitis Lethargica ...	—	—	—	—	—	1	—	—	—	—	—	—
Total	162	77	1	1	154	74	117	40	51	21	65	34
Rate per 1,000 population in each sub-district ...	4.67	2.22	0.60	0.60	6.88	3.31	6.71	2.29	3.99	1.64	5.49	2.87

Notifiable Infectious Diseases—Home and Hospital Deaths, 1945

Diseases	Died at Home	Died at Hospital	Total Deaths	Percentage of cases isolated in Hospital before death	Corresponding percentage for the year 1944
Diphtheria	—	5	5	100.00	66.67
Enteric Fever	—	10	10	100.00	77.78
Pulmonary Tuberculosis	74	76	150	50.61	55.70
Tuberculosis (Other forms)	3	10	13	76.92	70.00
Pneumonia (All forms)	53	26	79	32.91	34.02
Puerperal Fever	1	1	2	50.00	50.00
Cerebro-Spinal Fever	—	2	2	100.00	—
Acute Poliomyelitis	—	1	1	100.00	—
Encephalitis Lethargica	1	—	1	—	—
Total	132	131	263	49.81	—

Notifiable Infectious Diseases—Home and Hospital Deaths, 1946

Diseases	Died at Home	Died at Hospital	Total Deaths	Percentage of cases isolated in Hospital before death	Corresponding percentage for the year 1945
Diphtheria	—	2	2	100.00	100.00
Enteric Fever	—	8	8	100.00	100.00
Pulmonary Tuberculosis	85	73	158	46.20	50.61
Tuberculosis (Other forms)	4	10	14	71.43	76.92
Pneumonia (All forms)	29	32	61	52.46	32.91
Puerperal Fever	—	1	1	100.00	100.00
Cerebro-Spinal Fever	—	2	2	100.00	100.00
Encephalitis Lethargica	1	—	1	—	—
Total	119	128	247	51.82	49.81

TUBERCULOSIS

Pulmonary Tuberculosis

By the time this report gets into print two years will have elapsed since my last report and yet the position in regard to pulmonary tuberculosis remains practically the same.

True, something is being done: a tuberculosis officer has been appointed, the sanatorium-hospital at Caura is being constructed, a clinic has been started at the Caribbean Medical Centre and more cases of tuberculosis are being uncovered but, in spite of that, so little real progress is being made, so little in the way of arrest of disease is being achieved, so little alleviation of suffering is being accomplished that the despair and sense of frustration of a public health officer who has interest and work in this field cannot be expressed in words.

It would seem that a combination of untoward circumstances has conspired to delay the fruition of those plans, which have been initiated by my predecessor and which have been pursued unremittingly ever since I took up office, to put the detection, control, and treatment of cases of pulmonary tuberculosis on a sound working footing based on modern methods.

In the meantime, the situation within the limits of the City continues to deteriorate and coupled with the lack of proper housing accommodation, the acute overcrowding that is a routine feature, and with the high cost of living, it can truly be said that at no time have conditions for the spread of the disease been more propitious.

I had hoped that the hospital for advanced "open" infectious cases of the disease would have been an established fact by the year 1947, that these cases would have been removed from the grounds of the Colonial Hospital, that fewer of their number would have been wandering about the City frequenting shops, parlours, and public places, and occupying overcrowded rooms in the slum areas of the City where they find ready means for spreading their disease, but such is not yet the case and considering the slowness with which work in this direction is proceeding, it may be a long time before this very desirable event is consummated.

The Public Health Department, within the limited scope at its disposal, continues to carry out those routine measures of prevention and control which have been detailed in previous reports. Unfortunately, they very often serve to detect new cases of the disease for which so little can be done and which thereby are so great a source of distress and embarrassment to the Public Health Department.

Pulmonary Tuberculosis—Notifications and Deaths, 1918-46

Period	Notifications	Deaths	Death Rate per 1,000 population
Year 1918	299	233	3.43
Yearly Averages:			
1919-23	207	173.2	2.65
1924-28	167.6	154.6	2.38
1929-33	133.6	129.	1.85
1934-38	147.4	124.6	1.62
Average 1919-38	163.9	145.4	2.13
Year 1939	175	167	1.85
1940	155	118	1.28
1941	113	124	1.27
1942	157	136	1.37
1943	182	148	1.45
1944	186	158	1.52
1945	206	150	1.41
1946	173	158	1.57

Non-Pulmonary Tuberculosis

For some time now it has been becoming clear that what was generally considered to be a comparatively low incidence of this form of tuberculosis due to the relative immunity of our cattle from tuberculosis—the percentage of infected being stated to be somewhere in the vicinity of 3 to 4 per cent.—may not be quite a true picture of the existing state of affairs. Tuberculin testing of cattle, carried out by the new method recommended by the Ministry of Agriculture and Fisheries with a new tuberculin, is yielding a higher percentage of tuberculous infections and whilst the situation by no means gives rise to anxiety it is of great importance in that these infected cattle may lead to wide-spread contamination of herds and to a great increase in human tuberculosis, especially of the bovine type, unless definite measures are taken to destroy or isolate them, and unless the milk and/or meat derived from them is rendered innocuous by means which are well recognised and capable of easy application.

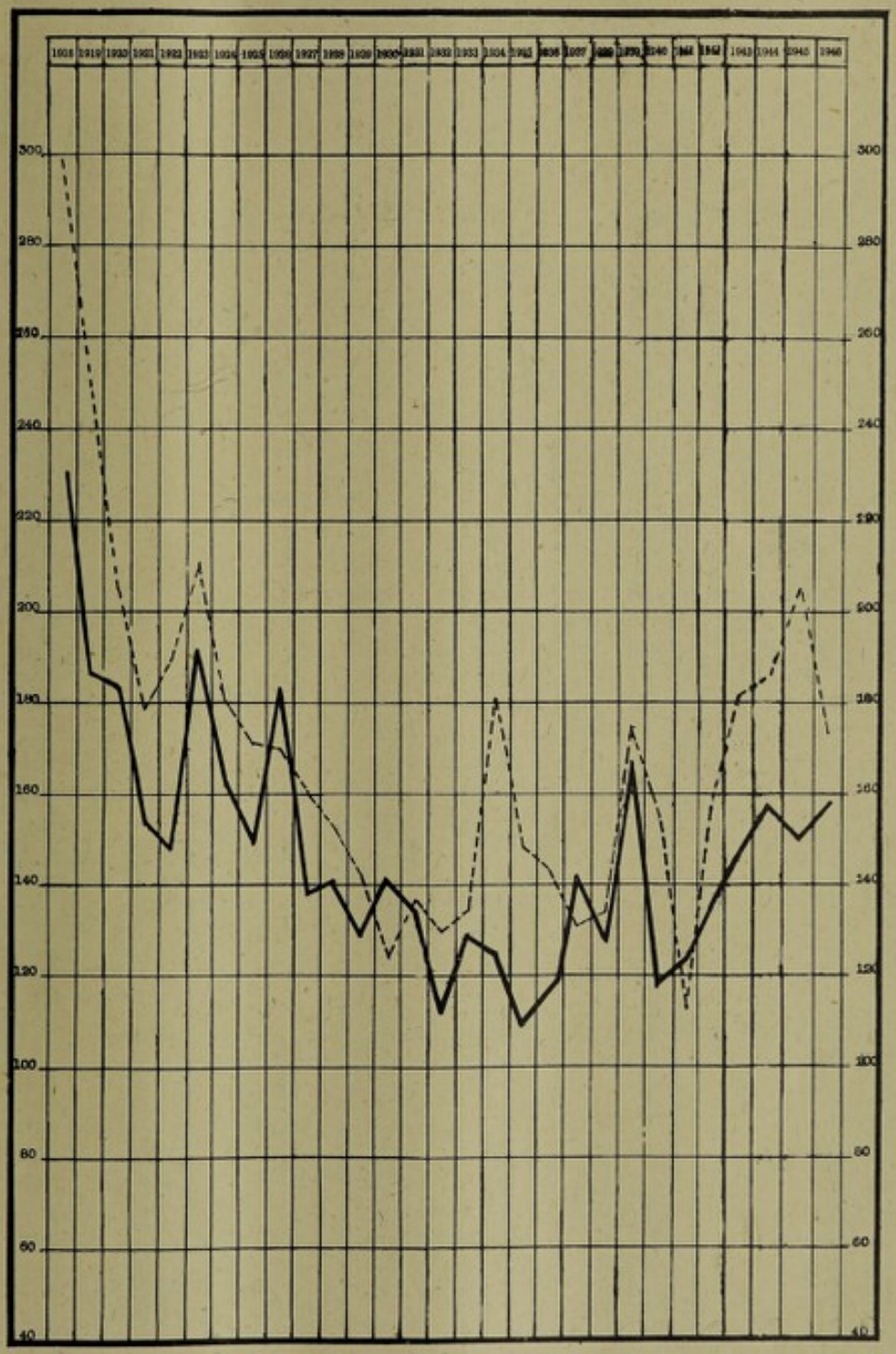
Certainly it would appear that cases of gland and bone tuberculosis are on the increase, but this is paralleled by a corresponding increase in cases of pulmonary tuberculosis due very likely to these environmental conditions associated with overcrowding, malnutrition, and defective sanitation.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1945

Forms	Notifications	Deaths
Miliary Tuberculosis	2	4
Tuberculous Laryngitis	—	1
Do. Meningitis	5	5
Do. Peritonitis	—	1
Do. Pleurisy	2	—
Tuberculosis of Bone	1	—
Do. Spine	7	2
Total	17	13

Chart F
Port-of-Spain

PULMONARY TUBERCULOSIS – Notifications and Deaths, 1918-1946



Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1946

Forms	Notifications	Deaths
Miliary Tuberculosis ...	2	5
Tuberculous Meningitis	2	3
Do. Peritonitis	2	—
Tuberculosis of Abdomen	—	1
Do. Larynx	—	2
Do. Leg ...	1	—
Do. Spine ...	—	3
Total ...	7	14

Deaths from Non-Pulmonary Tuberculosis 1924-46

Period	Deaths	Rate per 1,000 population
Yearly Averages :		
1924-28	15	0.23
1929-33	15.2	0.22
1934-38	10	0.13
Average 1924-38	13.4	0.19
Year 1939	15	0.17
1940	14	0.15
1941	6	0.06
1942	4	0.04
1943	9	0.09
1944	10	0.10
1945	13	0.12
1946	14	0.14

ENTERIC FEVER

Enteric fever is a disease that is endemic in the City of Port-of-Spain and one of the main pre-occupations of the public health officer is the detection, isolation, and efficient control of cases of enteric fever as they are brought to the notice of the Public Health Department by notification. It is also true to say that the general practitioner is fully aware of the importance of diagnosing these cases at the earliest possible opportunity and also of notifying them to the Medical Officer of Health with a view to preventing, as far as possible, the spread of the disease. The disease is, so to speak, "well notified" and the returns that reach the Public Health Department may be said to be fairly accurate and to represent closely the number of cases of enteric fever that actually occur. And yet in spite of this, "contact" cases are not uncommon—a fact which points to the need for more efficient disposal of excreta and for stricter and better isolation which is usually only successfully achieved by hospitalisation.

The number of cases of typhoid fever has shown a continuous decline from the year 1924, when chlorination of the City's water supply was first undertaken, to the present day. Whereas previous to that year the notifications were in the region of 400, 300, 250, they fell almost immediately to about half that number and have declined steadily during the last two decades to the present level of about 40 a year which is the average for the last quinquennium.

The smallest number of notifications received was in 1932 when 20 cases with 4 deaths were notified, the next lowest number being in 1936 with 32 cases and 6 deaths. In so far as the death rate is concerned, that also has shown a satisfactory reduction ever since the establishment of the Local Authority, but particularly since the year 1924 following chlorination of water supplies, and in 1946 the rate of .08 per 1,000 population was the lowest ever recorded, the average for the previous five years being .10 per 1,000.

These figures cannot be considered unsatisfactory, but compared with those of other cities of similar size in temperate climes, they are about ten times too high and further substantial reduction is urgently called for.

If the typhoid death rate is truly a reflection of the general level of environmental hygiene and a very sensitive index of the efficiency of public health measures directed toward securing a pure water supply, clean and wholesome food, the efficient disposal of excreta, &c., as is generally claimed, then much remains to be done and an impartial estimate of the existing state of affairs must admit that there is a good deal of truth in that observation, especially where the cleanliness of food and the efficient disposal of excreta are concerned.

As has been pointed out in previous reports, the greatest incidence of the disease falls on the younger age-groups 5 to 10 and 11 to 16, in fact the disease is often referred to as "juvenile typhoid".

ENTERIC FEVER

Notification and Deaths, 1918-1946

Period	Notifications	Deaths	Death Rate per 1,000 population
Year 1918	495	104	1.52
Yearly Averages :			
1919-23	301.8	67.8	1.03
1924-28	162.4	25.2	0.39
1929-33	37	10.8	0.16
1934	59.8	14.6	0.19
Average 1919-38	140.3	29.6	0.44
Year 1939	75	15	0.17
1940	70	11	0.12
1941	56	14	0.14
1942	37	12	0.12
1943	38	12	0.12
1944	32	9	0.09
1945	55	10	0.09
1946	37	8	0.08

Inoculation of Enteric Fever Contacts

T.A.B. Injections

Number Receiving one Injection	Number Receiving two Injections	Total
Year 1945 137	90	227
Year 1946 74	29	103

PNEUMONIA

Tuberculosis apart, pneumonia is the most important disease of the respiratory tract from a public health point of view. It may appear in epidemic form, and when complicating diseases like influenza, it may spread very rapidly and widely and be responsible for a very high mortality. Happily, the introduction of the sulphonamide group of drugs has had a very beneficial effect in so far as cure of the established disease is concerned, but we are still without efficient means of preventing the spread of this disease and the usual routine measures of isolation and disinfection cannot be said to be productive of very satisfactory results.

The number of cases of pneumonia notified in 1945 and 1946 were 118 and 87, respectively, and deaths certified were 79 and 61 which give a case mortality rate of about 68 to 70 per cent.—an astonishing figure especially when we consider that there is no shortage of sulpha drugs in the Colony and that practitioners are not slow to exhibit these drugs in the course of their daily practice. It can only mean that only a proportion of the cases are notified and much more reliance is therefore to be placed on the mortality figures.

In any case a rising incidence in the war years doubtless associated with overcrowding, poverty, lack of a sufficiency of essential foodstuffs, and poor sanitation, and which at one time was the cause of great anxiety to the Department, has apparently subsided and the figures are tending to indicate a very welcome decline.

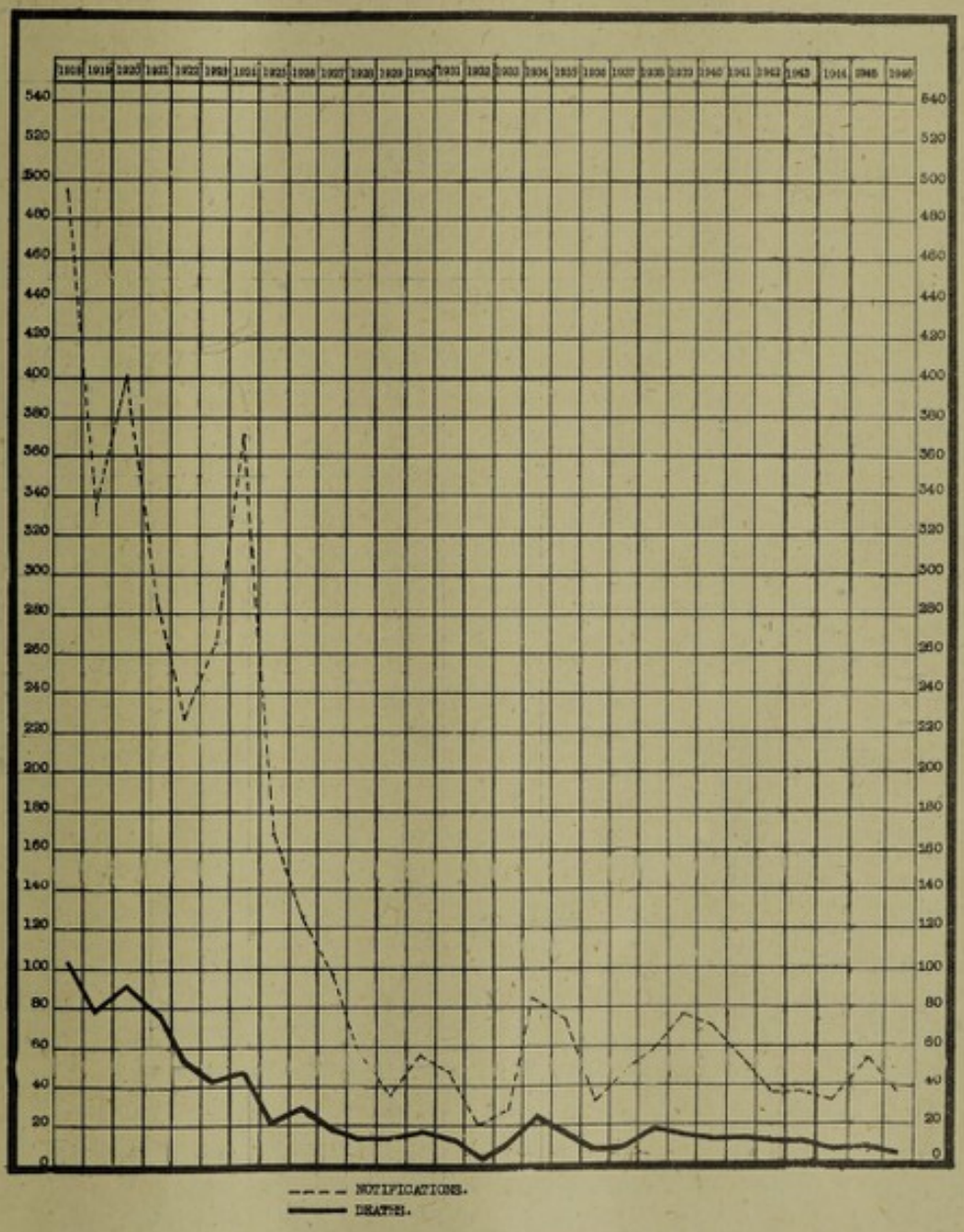
Pneumonia (All Forms)

Notifications and Deaths, 1922-46

Period	Notifications	Deaths	Death Rate per 1,000 population
Yearly Averages :			
1922-26	111.8	78	1.23
1927-31	69.8	53.4	0.79
1932-36	155.4	80.6	1.10
Average 1922-36	112.3	70.7	1.04
Year 1937	125	85	1.10
1938	101	70	0.83
1939	107	59	0.65
1940	69	63	0.68
1941	138	88	0.90
Average 1937-41	108	73	0.83
Year 1942	332	152	1.53
1943	251	149	1.46
1944	109	97	0.93
1945	118	79	0.74
1946	87	61	0.61

Chart G
Port-of-Spain

Enteric Fever—Notifications and Deaths, 1918-1946



DIPHTHERIA

Diphtheria, as it occurs in the urban sanitary district, is a relatively mild malady compared with the disease as it occurs in temperate climes, and the well known disability and after-effects attributable to this disease are relatively uncommon in this Colony. But every now and then a fatality occurs due almost invariably to the mis-diagnosing of an infection of laryngeal type and to delay in the early exhibition of anti-diphteritic serum. It is, therefore, a disease that must always be borne in mind and the necessary swabs taken to discover the presence of the Klebs-Loeffler bacillus which clinches the diagnosis. I need hardly state here that treatment must be prompt and ought not to await the result of the laboratory investigation though it is important that the swab (throat or nose) be taken before serum is given.

Mild outbreaks of the disease do occur every few years but, as a general rule, this disease is not generally the cause of any anxiety to the Public Health Department. The largest number of cases of this disease occurred in the year 1939 when 61 cases were notified with two deaths. In 1945 20 cases were notified with 5 deaths and in 1946, 22 cases with two deaths giving a death rate of .05 and .02 per 1,000 population, respectively.

Diphtheria
Notifications and Deaths, 1917-46

Period	Notifications	Deaths	Death Rate per 1,000 population
Yearly Averages :			
1917-21	11.8	1.4	0.02
1922-26	14.8	2	0.03
1927-31	23.8	1.6	0.02
1932-36	29.8	2.2	0.03
Average 1917-36	20	1.8	0.03
Year 1937	30	4	0.05
1938	16	3	0.04
1939	61	2	0.02
1940	37	2	0.02
1941	30	2	0.02
Average 1937-41	34.8	2.6	0.03
Year 1942	18	3	0.03
1943	40	4	0.04
1944	19	3	0.03
1945	20	5	0.05
1946	22	2	0.02

CHICKEN POX

Chicken Pox was unusually prevalent in 1945 and 1946 with 122 and 196 notifications, respectively. This disease is usually of a mild type, its main importance being the possibility of mistaking the disease for alastrim or mild small pox.

Certain it is that occasional severe cases of chicken pox bear a close resemblance to mild small pox, but a careful examination of the distribution of the eruption and a judicious appraisal of the symptoms and other signs presented by the case usually suffice to establish the diagnosis.

Chicken Pox—Notifications, 1924-46

Period	Notifications	Period	Notifications
Yearly Averages :			
1924-28	19.8	Year 1939	72
1929-33	41	1940	58
1934-38	110.4	1941	20
		1942	13
		1943	50
		1944	33
		1945	122
		1946	196

OTHER NOTIFIABLE INFECTIOUS DISEASES

One death attributable to acute anterior poliomyelitis was certified in 1945 and one notification was received in 1946.

There was no notification of or death from, encephalitis lethargica or acute paralytic rabies. In point of fact, no human case of this latter disease has occurred since 1938.

None of the dangerous infectious diseases : plague, small pox or alastrim, cholera, typhus or yellow fever was reported as having occurred in the Colony or of having been admitted from abroad.

Acute Anterior Poliomyelitis
Notifications and Deaths, 1927-46

Year	No. of Cases reported	Deaths	Year	No. of Cases reported	Deaths	Year	No. of Cases reported	Deaths
1927-29 ...	—	—	1933-35 ...	—	—	1939 ...	1	—
1930 ...	5	1	1936 ...	3	—	1940 ...	—	—
1931 ...	—	2	1937 ...	10	1	1941 ...	15	4
1932 ...	3	—	1938 ...	2	—	1942 ...	26	3
						1943 ...	—	—
						1944 ...	—	—
						1945 ...	—	1
						1946 ...	1	—

NON-NOTIFIABLE INFECTIOUS DISEASES

The infectious diseases which are usually considered under this heading are : Whooping Cough, Influenza, Dysentery, Ankylostomiasis, Syphilis and Measles. Some of these are highly infectious, viz. : influenza, whooping cough, measles; others are more contagious than infectious, viz.: syphilis, dysentery, and others again are indirectly infectious or contagious, viz.: ankylostomiasis and malaria.

Not being notifiable no accurate figures relative to their incidence in the urban sanitary district is available and we are left with the death returns only to form some estimate of their prevalence. Many of these deaths occur at the Colonial Hospital, in the City Proper and at the House of Refuge in St. James and it is no uncommon experience to find that many of these cases actually journey to the City from the country districts, give the City address of some relative or friend at the Health Office where they are often first seen, so as to be eligible for medical attention, and so are looked upon as a city case until investigation at the address given reveals the fact that the sick person actually resided in a " country " district and fell ill in the " country."

These diseases were responsible for 52 deaths in 1945 and 40 in 1946, syphilis claiming the largest number of victims in both years.

The decline in the mortality attributable to malaria, which hitherto has been responsible for the largest number of deaths in this list, is a noticeable and welcome feature.

Non-Notifiable Infectious Diseases—Home and Hospital Deaths, 1945

Diseases	Died at Home, &c.	Died at Hospital	Total Deaths	Percentage of cases isolated in Hospital before death	Corresponding percentage for the year 1944
Malaria	8	7	15	46.67	15.63
Whooping Cough	6	—	6	—	—
Influenza	2	—	2	—	1.56
Dysentery	2	3	5	60.00	—
Ankylostomiasis	2	—	2	—	—
Syphilis	15	7	22	31.82	7.81
Total	35	17	52	32.69	—

Non-Notifiable Infectious Diseases—Home and Hospital Deaths, 1946

Diseases	Died at Home &c.	Died at Hospital	Total Deaths	Percentage of cases isolated in Hospital before death	Corresponding per centage for the year 1945
Malaria	5	7	12	58.33	46.67
Whooping Cough	—	—	—	—	—
Influenza	1	2	3	66.67	—
Dysentery	1	4	5	80.00	60.00
Ankylostomiasis	—	—	—	—	—
Syphilis	15	5	20	25.00	31.82
Total	22	18	40	45.00	32.69

MALARIA

For a tropical city of over 100,000 inhabitants, Port-of-Spain is singularly free of malaria—a position achieved as a result of regular routine measures directed against the breeding ground of anopheline mosquitoes for well nigh over thirty years and the money spent during these years on the measures of prevention and control which I have detailed in several previous reports, has yielded enormous dividends in the relative immunity from malaria enjoyed by residents and visitors alike and the comparative freedom from mosquito nuisance that can truly be said to characterise the greater part of the urban sanitary district.

Dr. W. G. Downes of the Rockefeller Foundation who in 1941 investigated the malaria problem of the Colony at the instance of Government reported as follows : " The Malaria Survey was conducted in the City of Port-of-Spain from January through April, 1941 ". " Examinations were carried out on school children". " There were few observations on mosquito breeding, at least positive observations ", " We collected no anopheles larvae within the limits of Port-of-Spain. " Certainly if any breeding is going on, it is minimal. " A female aquasalis was captured in the Cascade section of town early in June (N.B.—This area is outside the limits of the City). This isolated observation is felt probably to be an example of flight of anopheles from a distant breeding area (*i.e.* Laventille Swamp). " The coastal boundaries of Port-of-Spain adjoin very malarious areas, on the one side Success Village with the nearby Laventille Swamp and on the other Diego Martin and the Cocorite Swamp ". It is probable that a few cases of malaria are acquired in these areas of town from anophelines flying in from nearby malaria infested areas, but doubtful whether malaria transmission occurs in the central and more western sections of the town."

" Port-of-Spain has low spleen and parasite rates and malaria may be considered a very minor health hazard within the city limits ". It is worth noting that both to the north and the south, the City adjoins very malarious areas namely Success Village and Diego Martin-Cocorite."

It is satisfactory to be able to record that the malaria situation has improved since the date of this report in the Colony generally and in the Success Village and Cocorite areas particularly as a result of the splendid efforts on the part of Government's Malaria Division which has been sparing no efforts to bring the problem under control. A joint Government and City Council project which includes temporary works of drainage, oiling, and canalising of pools is underway in the Cocorite area, and Success Village and Morvant once dangerously infested are being brought under control as a result of the spraying of house with D.D.T. and of other works directed to the eradication of subsidiary breeding grounds.

It is, however, still possible in the wet season to find anopheline mosquitoes in the very extreme eastern end of the City—a problem which has been rendered somewhat acute by the reclamation of the area south of the Dumping Ground and Abattoir and east of the Dry River which had been going on for some time but has now been stopped, and which has resulted in the stagnation of a large expanse of brackish water just ripe for the breeding of A. aquasalis in this area. Oiling on a large scale has to be undertaken regularly and this measure has succeeded in stemming this great potential danger, but at any moment there may be a flare-up if this area is not given an outlet to secure its drainage or speedily filled up with suitable material.

Malaria—Local Distribution of Deaths

Sub-districts	Deaths	
	1946	1945
City Proper	6	6
St. Clair	—	—
East Dry River	1	8
Belmont	2	—
Woodbrook	2	—
St. James	1	1
Total	12	15

SYPHILIS

The efforts of those who instituted The Venereal Diseases Control Campaign—and the name of Lt.-Col. O. C. Wenger of the United States Public Health Service stands out in this connection—are beginning to bear rich fruit in the interest that is being taken in the campaign, in the appreciation by the general public of the services that are being rendered by a band of devoted and energetic workers, in the use that is being made of the Caribbean Medical Centre not only for venereal diseases but also for other diseases as well, and in the consciousness of the gravity of the effects of neglected venereal disease which has been aroused by a persistent and well directed education programme, in which the value of continence has been unremittingly stressed.

By means of clinics in various areas adjoining the City, the sources of many city cases are being discovered and subjected to treatment, re-education and rehabilitation which, of course, is the core of the venereal disease problem. Unfortunately, without compulsory legislation which is not yet on the statute book, it is very often difficult to compel the source of a number of cases to undergo treatment to the point where serological as well as clinical cure has been obtained, and there are still a number of chronic offenders who have contracted venereal disease and who wander about the various eating and drinking places of the City courting every means of spreading infection.

The ring is, however, being gradually tightened around them and the whole venereal disease problem is being tackled in such a way, thanks now to the Health Department and to Development and Welfare, that, if continued over a number of years, venereal disease would cease to be the menace that it has been and I am pleased to be able to state that a more hopeful outlook can justly be entertained.

The returns shew that 22 and 20 deaths giving a death rate of .21 and .20 per 1,000, respectively, were recorded in the two years under report — the lowest mortality rate since the establishment of the Local Authority and the compilation of reliable statistics in 1917—with the exception of 1941 and 1942 when only 19 and 14 deaths were recorded giving a death rate .19 and .14 per 1,000, respectively.

I need hardly repeat that this mortality figure represents only a proportion of that attributable to syphilis whose main incidence is, of course, on the delicate tissues of the heart, blood vessels and nervous system and which is responsible for a large number of the diseases that attack these physiological systems, and inflict a high mortality.

Deaths from Syphilis—1918-46

Period	Deaths	Rate per 1,000 population
Yearly Averages :		
1918-22	16.2	0.24
1923-27	56.8	0.88
1928-32	28.2	0.41
1933-37	21.8	0.29
Average 1918-37	24.6	0.37
Year 1938	29	0.34
1939	26	0.29
1940	35	0.38
1941	19	0.19
1942	14	0.14
1943	29	0.28
1944	36	0.35
1945	22	0.21
1946	20	0.20

DYSENTERY, DIARRHOEA AND ENTERITIS.

These diseases are usually classified as "bowel filth diseases" and in a sense this is a good name indicating, as it does, that the cause of this group of diseases is infected faecal matter contaminating foodstuffs, particularly those that are consumed raw or partially cooked like green vegetables, watercress, lettuce, cabbage, various fruits, milk, ice cream, ices, made-up dishes, &c. and so reaching the alimentary tract where the germs multiply and reproduce the disease.

Grouped as they are, they constitute a mixed bag and include many cases of looseness of the bowels with the passage of blood and mucus which are the manifestations of other diseases like cancer, tuberculosis of the bowels, cirrhosis of the liver, or even malaria. Death returns often refer to these conditions as "Dysentery" especially where the body of the deceased is viewed after death and the practitioner has only the history of the case as given him by some near relative or friend to guide him. It is obvious, therefore, that the statistics relative to these diseases are not as reliable as they might be.

True dysentery is of two types—amoebic and bacillary—of which the former is the commoner and is the true tropical dysentery characterised by abdominal "gripes", great prostration, and the passage of blood and mucus. Unless treated properly and thoroughly this disease has a tendency to become chronic and the victims are prone to become carriers contaminating foodstuffs, water and milk wherever they go and so transmitting the disease to others.

Bacillary Dysentery due to B. dysenteriae Shiga or B. dysenteriae Flexner is an acute disease similar in many respects to Amoebic Dysentery but not tending, at least in this Colony, to become chronic or to induce the carrier state.

The prophylaxis of these diseases is the proper disinfection of contaminated discharges, the efficient disposal of sewage, the proper treatment of the individual cases to prevent them becoming carriers and the proper protection of foodstuffs especially those usually eaten raw or partially cooked from contamination with dust, dirt and flies.

Dysentery being similar in its incidence, cause and its effects to typhoid fever there can be no good reason why it should not be made a notifiable disease and so give public health departments an early opportunity to secure the isolation of cases and the proper disposal of excreta in addition to the possibility of compiling accurate statistics.

Deaths from the Dysenteries, 1918-46

Period	Deaths	Death Rates
Year 1918	43	0.63
Yearly Averages :		
1919-23	38.2	0.58
1924-28	32	0.49
1929-33	14.8	0.21
1934-38	5.4	0.07
Average 1919-38	22.6	0.34
Year :		
1939	2	0.02
1940	9	0.10
1941	11	0.11
1942	9	0.09
1943	6	0.06
1944	3	0.03
1945	5	0.05
1946	5	0.05

DIARRHOEA AND ENTERITIS

Deaths from Diarrhoea and Enteritis, 1918-46

Period	Deaths	Death Rates
Year 1918	193	2.84
Yearly Averages :		
1919-23	143.6	2.18
1924-28	72.8	1.12
1929-33	52.8	0.76
1934-38	40	0.52
Average 1919-38	77.3	1.15
Year :		
1939	45	0.50
1940	73	0.79
1941	104	1.07
1942	83	0.84
1943	87	0.85
1944	57	0.55
1945	42	0.39
1946	51	0.51

Diarrhoea and Enteritis—Deaths in Sub-districts

Sub-districts	No. of Deaths	
	1946	1945
City Proper	7	4
St. Clair	—	—
East Dry River	23	20
Belmont	11	5
Woodbrook	3	—
St. James	7	13
Total	51	42

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

Deaths certified to cardiac and vascular diseases in 1945 and 1946 numbered 235 and 204, respectively—the highest number attributable to a single set of causes in each of the two years.

I have in previous reports and earlier in this report referred to the large number of victims claimed by these diseases which show no signs of diminution but which, on the contrary, as the expectation of life increases, are tending to give rise to an increasing death rate in the older age-groups particularly.

Undoubtedly many of these conditions are due to other chronic system diseases of which a large part is played by syphilis, chronic renal disease, diabetes &c., but there are many of these diseases especially those that attack the blood vessels whose cause is obscure and for which, therefore, comparatively little can be done when once the vascular apparatus has been attacked, viz: arterio-sclerosis, atheroma, coronary thrombosis. The only hope would appear to be in a campaign of health education to bring home to the general public the appreciation of the dangers of these diseases when once these structures have been attacked, the importance of avoiding undue stresses and strains, of having regular medical examination, and of receiving medical attention at the earliest indication of any trouble.

Of the deaths listed in the table set out hereunder myocarditis claimed the highest number of victims with coronary thrombosis and aneurysm next. It is of interest to note that as the symptoms and clinical signs of coronary thrombosis are more appreciated, this disease is more often recognised as compared with angina pectoris which was not reported as being responsible for any deaths at all in the two years under review.

Deaths from Cardiac and Vascular Diseases in Age Groups—1945

Forms	0-20 years	21-40 years	41-60 years	Over 60 years	Total
Diseases of Arteries and Valves:					
Aneurism	—	9	8	5	22
Arterio-Sclerosis and Atheroma	—	—	4	29	33
Coronary Thrombosis	—	—	1	2	3
Mitral and Aortic Incompetence	—	7	12	12	31
Other Diseases of Arteries and Valves	—	5	11	10	26
Diseases of the Heart:					
Aneurism	—	1	2	—	3
Auricular Fibrillation	—	—	1	1	2
Pericarditis	—	—	1	—	1
Endocarditis	—	1	1	—	2
Myocarditis	—	4	9	39	52
Myocardial Degeneration	—	1	4	21	26
Angina Pectoris	—	—	—	—	—
Other Cardiac Diseases	—	7	7	20	34
Total	—	35	61	139	235

Deaths from Cardiac and Vascular Diseases in Age Groups—1946

Forms	0-20 years	21-40 years	41-60 years	Over 60 years	Total
Diseases of Arteries and Valves:					
Aneurism	—	8	10	6	24
Arterio-Sclerosis and Atheroma	—	—	2	5	7
Coronary Thrombosis	—	1	5	4	10
Mitral and Aortic Incompetence	1	4	5	4	14
Other Diseases of Arteries and Valves	—	6	10	12	28
Diseases of the Heart:					
Aneurism	—	—	1	2	3
Auricular Fibrillation	—	—	—	—	—
Pericarditis	—	—	—	—	—
Endocarditis	1	—	—	—	1
Myocarditis	—	1	13	27	41
Myocardial Degeneration	—	1	5	24	30
Angina Pectoris	—	—	—	—	—
Other Cardiac Diseases	3	9	12	22	46
Total	5	30	63	106	204

CANCER AND OTHER MALIGNANT DISEASES

These diseases have been referred to in previous annual reports and nothing new can here be recorded. In spite of intensive research all over the civilized world, the cause of these diseases remains obscure and because of that no prophylactic measure is of any value; the only ray of hope lies in the early resort to surgery and deep X-Ray therapy which may effect a "clinical" cure in early and suitable cases.

The figures show that these diseases are on the increase, a steady if slow increase in the number of deaths certified being noticeable during the last decade.

An interesting feature is the lack of any returns showing deaths from cancer of the lung, a disease which has shewn a great increase in incidence and mortality in temperate climes, particularly the United Kingdom.

Deaths from Cancer and Other Malignant Diseases, 1918-46

Period	Deaths	Rate per 1,000 pop.
Yearly Averages :		
1918-22	44.4	0.67
1923-27	45.6	0.71
1928-32	44.6	0.65
1933-37	556.8	0.76
Average 1918-37	47.9	0.70
Year 1938	70	0.83
1939	76	0.84
1940	78	0.85
1941	69	0.71
1942	84	0.85
1943	88	0.86
1944	84	0.81
1945	80	0.75
1946	79	0.78

Cancer and Other Malignant Diseases—Forms, Sites and Deaths

Forms and Sites	Deaths, 1946		Deaths, 1945	
	Males	Females	Males	Females
Carcinoma :				
Eye	—	—	—	1
Throat, Larynx, Bronchi	2	1	3	1
Mouth, Tongue, Stomach, Oesophagus, Liver, Pancreas, Intestines, Colon, Rectum	18	21	16	14
Breast	—	6	1	7
Vulva, Vagina, Uterus, Ovaries	—	22	—	28
Urinary Bladder	—	—	1	2
Prostate, Penis, Testicle	2	—	2	—
Site not stated	—	1	—	1
Sarcoma :				
Arm	1	—	—	—
Spine	1	—	—	—
Thigh	—	—	—	1
Undefined Malignant Neoplasms :				
Abdomen	—	—	1	—
Ovaries, Uterus	—	2	—	1
Leg	—	1	—	—
Site not stated	—	1	—	—
Total	24	55	24	56

SANITARY ADMINISTRATION

Staff

The staff of the Public Health Department comprises, at the time I write, of 19 pensionable employees and 98 men on the non-pensionable establishment who, with the Medical Officer of Health, make a total of 118 workers. In addition, because of the acute shortage of Sanitary Inspectors, it has been found necessary to re-employ 5 Sanitary Inspectors who had retired on having reached the age limit and were in receipt of pension. In spite of this there is still a shortage of Sanitary Inspectors ; we are one short of our regular quota of 20 and because of the density of the various sanitary districts and the increase in public health activities which the Inspector has been called upon to undertake it has been found that the districts are too large and will perforce have to be further subdivided with a view to greater efficiency and more concentrated work.

All these workers, with the exception of the Chief Clerk, three Sanitary Inspectors, one clerical assistant, one messenger and one office hand who comprise the indoor office staff, are engaged in the various sub-districts of the City.

One Sanitary Inspector is in charge of anti-bat and water sampling work and does also some district work when not engaged in these duties. Another Sanitary Inspector does the investigation of infectious diseases which are notified by practitioners and is responsible for all preventive

measures for checking the spread of these diseases, *e.g.*, the disinfection of premises, the bringing in of contacts for inoculation, the oiling of cesspits, in addition to the disfection of theatres, common lodging houses, hotels &c.; in fact, he is in charge of all disinfection work. Another Sanitary Inspector is the Building Inspector and devotes his attention to Building Notices, Plans and Completion Certificates, the preparation of charts, layouts, diagrams almost exclusively when not engaged in other duties which may be imposed upon him—in fact he is the Draughtsman of the Department. Thirteen Sanitary Inspectors, when available, look after the 13 Sanitary Districts into which the City is divided and they do house-to-house inspection, detect nuisances, and take steps to abate them &c.; they are in charge of the various groups working in their district and their duty is to keep their districts in good sanitary condition.

The anti-mosquito unit, consisting of 8 drivers, 16 special or tinmen, and 17 men divided into 8 groups, is under the control of the Anti-Mosquito Overseer, who maps out, records, directs, supervises and helps in the work. He is also timekeeper to the Unit.

Similarly, the Anti-Rat Unit consisting of 11 Drivers and 24 men divided into 9 groups is under the control of the Anti-Rat Overseer.

When engaged in field work, individual groups come under the direct supervision and control of the Sanitary Inspector of the district in which they happen to be working. In this way the Sanitary Inspector of the district is in charge of and made responsible for, the health and sanitary state of the district and on him rebounds the credit or blame for the hygiene of the district to which he has been assigned.

The Anti-Bat Unit consists of one driver and 5 men under the direction and control of the Anti-Rabies Inspector. Their work takes them throughout the length and breadth of the City and by agreement with Government they do baiting, poisoning, and trapping in the areas immediately adjoining the City.

The Disinfection Unit consists of one driver and 8 men ; the oiling and anti-mosquito section of this unit comes under the direct control of the driver but they are all supervised, directed and controlled by the Sanitary Inspector in charge of Infectious Diseases.

The Public Conveniences Unit whose duty it is to keep the various public conveniences which are provided by the Corporation in good sanitary condition and to see that the public are properly served in this respect consists of 7 men, 2 of whom are engaged in doing night duty.

Disinfection

Premises, &c., Disinfected for Infectious Diseases and Vermin

Diseases	Premises sprayed	
	1945	1946
Pneumonia	67	54
Tuberculosis	118	143
Enteric Fever	51	32
Diphtheria	15	17
Puerperal Fever	13	7
Ophthalmia Neonatorum	9	6
Chicken Pox	68	77
Cerebro-Spinal Fever	2	2
Total	343	338
Vermin	384	350

In 1945, 22,153 and in 1946, 19,490 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases

Inspection of Premises, &c., by Sanitary Inspectors

	1945	1946
Average Monthly No. of Visits to Dwellings, Shops and other Premises	6,214	6,288

Inspection of Stores, Shops, &c.

	Average Monthly No. of Visits 1945	1946		*Average Monthly No. of Visits* 1945	1946
Provision and Meat Shops	114	113	Sweet Drink Carts	11	26
Provision Stores	18	11	Dairies and Cowsheds	44	46
Restaurants and Cookshops	37	39	Stables	43	48
Bakehouses	18	18	Goat Pens	68	71
Bread Depots	5	7	Aerated Water Factories	7	7
Cake and Ice Cream Shops	146	157	Soap Factories	3	4
Fry Shops	5	10	Other Factories	34	22
Hotels	5	5	Schools	22	24
Markets	6	5	Common Lodging Houses	6	5
Spirit Shops	20	23	Barber Shops	24	28
Ice Cream Carts and Pails	27	68	Dyeworks	2	3
Cake Trays and Baskets	11	59	Laundries	25	22
Provision Trays and Baskets	54	247	Garages	19	18
Bread Carts and Baskets	16	23	Tanneries	5	6
Fresh Fish Trays	5	8	Public Urinals	5	4
Oyster Vendor's Baskets	4	6	Boats	15	12

(C) Results of Notices and Verbal Directions, year 1945

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime-washed	Oiled
Yard pavements	65	142	—	—	—	—	—
Depressions in yards	—	—	—	—	189	—	—
Yards	—	—	2,808	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	288	480	3,581	—	—	—	—
Lavatories, sewer basins, flushtanks urinals, bath rooms, &c.	174	116	1,568	—	—	56	—
Privies	231	570	—	—	—	501	—
Cesspits	136	186	1,890	—	—	—	267
Manure Heaps	—	—	—	—	189	—	—
Rat Holes	—	—	—	—	117	—	—
Tree Shade, Overgrowths of bush ...	—	—	—	—	753	—	—
Dustbins	483	213	545	—	—	—	—
Dustbin covers	379	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	219	2,218	165	—	152	—
Aerated Water Factories	—	—	60	—	—	2	—
Bread Carts	—	—	—	5	—	—	—
Barracks, Common Lodging Houses ...	—	46	42	34	—	18	—
Garages, Kitchens	—	126	—	—	—	97	—
Cowsheds, Stables	—	66	291	—	—	44	—
Tanneries, Soap Factories, &c. ...	—	—	—	—	—	10	—
Close boarding, Ventilation of Houses	5	—	—	—	—	—	—
Barber Shops and other Workshops ...	—	—	63	24	—	—	—

(C) Results of Notices and Verbal Directions, year 1946

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime-washed	Oiled
Yard pavements	35	126	—	—	—	—	—
Depressions in yards	—	—	—	—	109	—	—
Yards	—	—	2,487	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	243	410	2,882	—	—	—	—
Lavatories, sewer basins, flushtanks urinals, bath rooms, &c.	149	168	1,485	1	—	20	—
Privies	188	575	—	—	—	534	—
Cesspits	166	129	2,326	—	—	—	173
Manure Heaps	—	—	—	—	198	—	—
Rat Holes	—	—	—	—	122	—	—
Tree Shade, Overgrowths of bush ...	—	—	—	—	783	—	—
Dustbins	940	151	389	—	—	—	—
Dustbin covers	320	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	148	2,023	320	—	343	—
Aerated Water Factories	—	—	52	—	1	16	—
Bread Carts	—	—	—	8	—	—	—
Barracks, Common Lodging Houses ...	3	47	56	62	—	122	—
Garages, Kitchens	10	140	—	—	—	131	—
Cowsheds, Stables	2	29	200	—	—	28	—
Tanneries, Soap Factories, &c. ...	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses	7	—	—	—	—	—	—
Barber Shops and other Workshops ...	—	—	78	45	—	—	—

Reports to Water and Sewerage Department

Reports	*Total* Year 1945	Year 1946
Leaks, defective taps, chokes, &c. ..	1,499	1,502

Anti Rabies Measures.—1945

Trapping, &c., of Bats

No. of locations inspected for roosts of bats 22,745

Bats Caught.

Artibeus	191
Desmodus	—
Hemiderma	48
Molossus	25
Noctilio Leporinus	1
Saccopteryx	—
	*265

* Besides these, 7 Desmodus, 7 Hemiderma, Artibeus and 1 Molossus were caught in adjacent districts outside the City limits.

Anti Rabies Measures.—1946

Trapping, &c., of Bats

No. of locations inspected for roosts of bats .. 22,905

Bats Caught.

Artibeus	157
Desmodus	—
Hemiderma	32
Molossus	10
Noctilio Leporinus	—
Saccopteryx	1
	*200

* Besides these, 5 Desmodus, 13 Hemiderma, 31 Artibeus and 4 Molossus were caught in adjacent districts outside the City limits.

Building Plans, &c.

Reports made by the Public Health Department were as follows :—

	Number. Year 1945	Year 1946
On plans, &c., for reconstruction or reconditioning of buildings	1,210	1,175
On applications for leases of land in Woodbrook ..	92	119
On premises in which building operations were in progress	364	366
On applications for certificate of completion of buildings	87	89

Prosecutions—1945

Offences.	*No. of Cases.*	*Total Fines, &c.*
Failing to comply with nuisance notices	24	$273.00
	31	Reprimanded
	6	Magistrates' Order
	6	Withdrawn
	1	Dismissed
Failing to provide proper dustbin	6	$19.60
	3	Withdrawn
Throwing offensive matter in a street	1	Dismissed
Failing to exhibit Milk Badges	5	$30.00
Hawking or carrying milk without licence or badge ..	7	$24.40
	4	Reprimanded
	7	Withdrawn
Exposing foodstuff not protected from contamination—for sale	14	$38.60
	4	Withdrawn
Total	56	$385.60
	35	Reprimanded
	20	Withdrawn
	6	Magistrates' Order
	2	Dismissed

Prosecutions—1946

Offences.	*No. of Cases.*	*Total Fines, &c.*
Failing to comply with nuisance notices	23	$277.20
	34	Reprimanded
	4	Withdrawn
	1	Dismissed
Failing to provide proper dustbin	4	$12.20
	4	Reprimanded
	1	Withdrawn
Failing to cause sewer basins to be maintained clean ..	2	$7.40
	1	Reprimanded
Keeping stagnant water liable to breed mosquitors	1	Reprimanded
Hawking or carrying milk without licence or badge ..	11	$13.20
	2	Reprimanded
	2	Withdrawn
Exposing foodstuff not protected from contamination—for sale	2	Reprimanded
Total	40	$310.00
	44	Reprimanded
	7	Withdrawn
	1	Dismissed

Financial

	1944	1945	1946
Revenue collected by Public Health Department	$2,063.75	$1,176.32	$1,499.49
Expenditure (Staff, Labour, Materials &c.)	$78,984.27	$81,604.12	$84,569.52

Changes in the Staff—1945

Appointments.

G. Estwick .. .. Appointed Sanitary Inspector as from 1st August, 1945.
E. Alfred .. .. do. do. do. do.

Resignations.

John V. Smith—Sanitary Inspector .. .. Resigned as from 26th February, 1945.
E. Alfred— do. do. .. .. do. do. 7th September, 1945.
E. A. Richards— do. do. .. .. do. do. do.

1946

Resignations.

G. Estwick—Sanitary Inspector .. .. Resigned as from 1st July, 1946.
W. G. Williams— do. .. .. do. do. 16th October, 1946.

Leave of Absence

Officers.	Year 1945.		Year 1946.	
	Vacation Leave	*Sick Leave*	*Vacation Leave.*	*Sick Leave.*
	No. of Days.	*No. of Days.*	*No. of Days.*	*No. of Days.*
Ashe, G.—Sanitary Inspector	—	—	168	30
Assing, C.— do.	112	—	—	—
Babb, F.— do.	—	—	84	40
Boxill, E.— do.	70	88	—	10
De Four, H.— do.	28	—	—	7
Forde, G.— do.	21	—	28	7
Forde, O. E.—Chief Sanitary Inspector ..	35	—	—	—
Guppy, N.—Sanitary Inspector	165	—	—	—
Holdip, M.— do.	21	—	21	—
Howard, J.— do.	28	—	28	—
Marcano, Dr. G. R.—Medical Officer of Health	—	28	250	—
Mitchell, T.M.—Chief Clerk	21	—	14	—
Parris, J. E.—Overseer	42	—	—	7
Pierre, G.—Sanitary Inspector	61	—	—	—
Richards, E.— do.	21	—	—	—
Rivers, F.— do.	84	14	42	—
Romain, A.— do.	70	—	21	—
Seon, F.— do.	42	—	42	—
Smith, J. V.— do.	21	—	—	—
Wilson, A.—Acting Clerical Assistant ..	42	—	14	—
Wilson, I.—Sanitary Inspector	—	—	21	—

Acknowledgements

The work of the Public Health Department during the past two years has been carried on under conditions which can only be described as adverse.

There has been a great shortage of Sanitary Inspectors due to a general lack of qualified men and to the fact that the scale of salaries paid by the Corporation does not compare favourably with that obtaining in Government. As a result the great majority of the young qualified men who join us and whom we take great trouble to train in our methods leave us after only a few months to enter the more lucrative service of Government.

In addition the general shortage of material, the lack of major permanent works in the various districts, none of which have been performed now for a few years, and the universally difficult conditions brought about by the aftermath of war have all contributed to make the work of the Department more onerous and difficult.

My appreciation therefore goes out to all those Sanitary Inspectors who have stood by the Department and who have borne the heat and burden of the day. Without their whole-hearted support the state of the public health must inevitably have deteriorated and we might have been faced with an epidemic of infectious disease.

In the year 1946 we lost by retirement Sanitary Inspector Williams who came to us in 1917 from Government—a Sanitary Inspector of wide and varied experience whose loss we deplore. He has had to be recalled to service and at the moment he is once more with us performing splendidly the duties which he has done for many a long year.

Both Mr. O. E. Forde, Cert : R. San : I., our Chief Sanitary Inspector and Mr. T. M. Mitchell, Cert : R. San : I., our Chief Clerk continue to give yeoman service and contributed greatly to the smooth working of the Department and the satisfactory state of the public health by the capable and loyal leadership of their respective establishments.

The non-pensionable as well as the pensionable staff gave of their best and the harmony and co-operation that have always characterised the working of the two sections of the Department continued unabated during the two years under report.

For this I am deeply grateful and I seize this opportunity once more to commend their valuable services to the favourable notice of the Local Authority.