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 YEAR

1960

BY

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

GOVERNMENT PRINTING OFFICE, TRINIDAD, W.I.—1961

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

1959-1960

THE CITY COUNCIL

His Worship the Mayor, Councillor Dennis Mahabir, J.P.

Deputy Mayor:

Councillor J. Hamilton Holder

Aldermen:

William Dolly — Dudley Cobham

Kenneth Fletcher — Fitzgerald Blackman

Mrs. Kathleen Warner

Councillors:

J. Abraham — T. Franklin

I. Merritt — A. Hadeed

J. Foster — J. Hackshaw

C. A. Roach — L. G. Rostant

A. Sabga-Aboud — E. Taylor

C. B. Tywang — V. Woolford

Miss A. Harper

Administration Report of the Public Health Department of the City of Port-of-Spain, Year 1960

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PUBLIC HEALTH DEPARTMENT,
57/59, FREDERICK STREET,
PORT-OF-SPAIN,
TRINIDAD, W.I.

10th November, 1961

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 Sanitary Authority, the Annual Report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1960.

No major event of any real significance occurred during the year 1960 to disturb the even tenor of the progress which the year 1959 recorded in the health and sanitary state of the Urban Sanitary District and even if that progress has been slow and there has not been any great turnover of major works designed to cure the ills that affect the City as a whole, yet, during the year under report, much has been achieved which augurs well for the future of the temporary capital of the Federation.

I refer to the fact that during the year under report surveys for the major project of sewering the remaining unsewered parts of the Urban Sanitary District were actually under way ; that measures for augmenting and improving the water supply were being undertaken ; that a date-line for the abandonment of the unsatisfactory river sources was actually set ; that the paving of primitive earthen watercourses and the enlarging of underground drains were being further prosecuted ; that streets were being repaired and widened and footways extended and reconstructed in certain parts of the Urban Sanitary District. I refer especially, of course, to the project of works which are in the process of execution at the time I write in the Carr Place-St. Barbs Road area.

It is clear that we are content now not only with the day-to-day routine work of maintenance and scavenging but that we are progressing a step further, and a determination to eliminate once and for all the various insanitary conditions which I have been referring to year after year in every annual report that I have addressed to the Urban Sanitary Authority is being clearly exhibited.

In the year under report the scene has shifted from west to east and much care and attention was devoted to the completion of the Town Hall project, the repairing and levelling of the footways, as well as to the filling in and grading and draining of the streets in various parts of the City.

In fact a programme of improvement works in the various sub-districts of the City has been drawn up and the works detailed in that programme were being executed according to plan.

There was no deterioration in the general health of the City of Port-of-Spain in the year 1960, and no outbreak of infectious disease of a magnitude or of a kind to cause anxiety and concern to the Public Health Department was recorded.

We still have our difficulties with the Night Soil Unit, these men having set themselves the task of " going slowly " but that has been overcome by the establishment of a third gang with whose help over the week-end we have been able to hold things under control. We still had with us an outbreak of chicken pox, 136 cases as against 159 in the year 1959, but mild explosions of chicken pox do occur from time to time in the Urban Sanitary District especially in the congested and overcrowded sub-districts of the East Dry River and Belmont sub-districts without having any adverse effect on the City as a whole.

In so far as vital statistics are concerned the returns showed that there was a decrease in the number of infectious diseases notified—289 as against 317—due in the main to the falling off of the number of cases of chicken pox notified, though the difference 28 cannot be looked upon as really significant from a statistical point of view.

On the whole the figures for 1960 were practically the same as for the year 1959. Deaths from the main notifiable infectious diseases showed a decline, especially those attributable to diarrhoea and enteritis—57 as compared with 67 in the year before, the East Dry River District and the City Proper again furnishing by far the largest number of cases, 27 and 19 respectively.

Deaths from cardiac and vascular diseases showed a welcome decline, 260 as against 299, though deaths from cancer and other malignant diseases showed a slight increase, 123 having been certified in the year under report as against 113 in the year before, i.e. 1959.

There was good reason, however, for optimism taking the year 1960 as a whole ; the various services for which the Department is responsible were maintained at a satisfactory level by units which functioned conscientiously and efficiently ; the health and sanitary condition of the City showed no deterioration and some improvement in certain directions was noted ; and above all the

plans that were being prepared and the measures that were being formulated during the year for a comprehensive programme of major works designed to abate these long standing nuisances to which reference has been made from the time that I assumed the duties of Medical Officer of Health, and which can be abated only by a major comprehensive scheme such as that contemplated, are destined to make the City of Port-of-Spain the Queen of the Antilles and the show piece of the Caribbean such as it has a right to be seeing that it is the temporary seat of the Federal Capital.

Thanks for this not unfavourable state of affairs are due in the first place to His Worship the Mayor, Aldermen, and Councillors of the Local Sanitary Authority who have continued to take an active interest in the public health of the City and to facilitate the work of the Public Health Department by their ready acquiescence in all measures and projects directed to the improvement of the health and sanitary condition of the Urban Sanitary District.

In the second place I desire through this medium to express thanks to the City Engineer's Department, the Town Clerk's Department, the City Treasurer's Department, and the City Assessor's Department who, through their respective Chief Officers, have given ready support and active co-operation to the work of the Public Health Department without which much that has been achieved could not have been accomplished.

Finally, I desire to commend the work of the staff of the Public Health Department as a whole, pensionable as well as non-pensionable, for a year's work well done.

I have the honour to be,

Sir.

Your obedient servant,

RODERICK MARCANO
Medical Officer of Health

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

The size of the City remained the same as it has been since the year 1949 when the 168 acres south of Wrightson Road and extending from King's Wharf to the Mucurapo Pumping Station, the greater part of which had at one time been used as a Dump by the Council and which was as a result reclaimed by the process of " controlled tipping ", were added to the area of the City by an Ordinance which declared that the Sea was the southern boundary of the City " wherever it is now and wherever it is likely to be in the future ". The acreage of the City now stands at 2,550.

The mid-year population for 1960 was estimated to be 94,100, 5,250 less than 99,350, the figure for 1959. A house-to-house census undertaken by the Statistical Department of Government to estimate the degree of overcrowding of premises in the Municipalities indicated that the original figure was far in excess of what the resident population at the time was likely to be. The results of that census showed also, what has been well known to the Department, that there was gross overcrowding of certain sub-districts of the City of Port-of-Spain and that the number of dilapidated and insanitary houses was as high as 46.4 per cent. of the 20,090 accommodation units in the City.

I have already made brief reference to the works that are being executed in the St. Barbs Road-Carr Place Area. There are a number of small roads or rather tracks which lead off from St. Barbs Road and eventually end up in the Carr Place Area through which storm water flows and eventually finds its way along the slipper drains which course down Carr Place to Belmont Circular Road. These small roads or tracks are being widened at the time I write, the area levelled off, and a gradual general decline provided to ease the pace at which water flows southwards, and when this piece of work has been completed the area in question will present the appearance of an area well laid out and planned to receive storm water which comes from areas higher up, without any disturbing effect on the general layout.

Not much is said here about Shanty Town and John John, and the La Pena Ravine because not much has been accomplished during the year under review except that flats designed to accommodate the residents of these areas are going up in the Hirondelle Street Area of Morvant and it will not be long now before these areas shall have been cleared of their inhabitants and a start made on the major works which have been planned for these areas.

In the Mango Rose Area of the City I am pleased to be able to report some progress. Flats are in actual process of erection in the Hirondelle Street Area of Morvant designed to accommodate the residents in this area, and Government have actually acquired all the premises in the entire area with a view to having them demolished and the site levelled off as a necessary preliminary to the major works that have been designed for this particular area. It wont be long now before multi-storied flats will have been erected and the space, fresh air and sunlight that such flats entail provided.

If, added to this, one takes into consideration the many bits of work that have been executed in the various sub-districts of the City: the levelling, widening, paving, draining of streets and primitive passages ; the draining of land-locked openings and in some cases their actual elimination; together with the general work of improvement and consolidation that have been taking place in the City as a whole, one must come to the conclusion that the face of the City is undergoing a great and irreversible change.

SANITARY CIRCUMSTANCES

Water

The position in so far as water supply to the City of Port-of-Spain is concerned is that whilst no major change can be recorded in the year under report, additions to the volume of water necessary to meet the needs of the City have been made by the addition of one well in the Maraval District to the volume of water made available to the City by the Maraval River supply. Wells are being sunk in the Maraval River Catchment Area designed to eliminate the Maraval River Supply itself in course of time, but so far only one well has been added to the supply. This is a most welcome addition but it is to be hoped that the Maraval River supply will now be eventually scrapped as soon as the necessary amount of water to replace it has been found.

Two King George V Park wells which together yield a total of about one and a half million gallons have been added to the general supply but owing to difficulties with the pumping apparatus these wells have had to be closed down during several periods of the year. In spite, however, of set backs as to the date at which certain projects, particularly the Navet Dam project, would be completed and which would make a material difference to the amount of water that would be made available to the City, progress is being made and the general picture is heartening.

Whilst there has been some improvement in so far as the quantity of water is concerned, the quality of the water supply remains the same as I have described in my previous report, viz. that the river sources yield a supply that is initially, i.e. when raw and not subjected to treatment, of poor quality and invariably highly polluted. That this is to be expected can be gathered from the fact that when these river sources were selected at the beginning of the current century as sources of

At the north-western outskirts of the City the Bournes Road Ravine cries aloud for permanent works of widening and paving in its upper reaches commencing at its very source in the Ross Lands area and proceeding, step by step, to link up with the paved ravine within the limits of the City, but this is a project of a major nature and it is likely to cost a good sum of money and take up a fair amount of time. Other works of drainage confined to the City have been and are being undertaken by the City Engineer's Department in their programme of works under the Five-Year Development Plan and earthen grass-grown footways have been paved, roads have been widened, and street drains constructed to take rain and storm water away. The western side of Charlotte Street from Queen's Park East to Keate Street, and the eastern side of Charlotte Street from the Holy Name Convent to the Hospital Gate have been levelled, paved, and drained and now presents the appearance of a properly paved footway with efficient street drains at the side of the widened roadway, to the great satisfaction of all concerned. This coupled with numerous bits of work scattered all over the City, particular attention being paid, however, to the uncompleted works in the Gonzales Place Area, and to the more pressing demands in the East Dry River District, has given City Engineer's Department a full year's work under the Five-Year Development Plan.

Sewerage also is receiving the attention that it deserves and the Public Health Department is stimulated and encouraged by the buoyant hope and eager expectation that the plans that are now being prepared and the measures that are now getting underway to start sewering the eastern unsewered areas of the City have produced. Several consultations have taken place between officers of my Department and myself and the officers of the newly-formed Sanitation Unit of Government, and the plans when translated into actual work in the field will be the prelude to the final act in the programme of major works designed to improve the environmental sanitation of the City that I have been detailing in every annual report that I have addressed to the Local Authority. When the day dawns on which the City Council will be in a position to declare the East Dry River and Belmont Areas, not to mention the St. James and Cocorite Areas, a sewered area, that day will hear the prayers, and thanksgiving from, and see the joy and the pleasure on, the countenances of the residents of these faecal polluted, inadequately drained and dangerously congested areas, where cesspits are located next to and almost inside kitchens and dwelling houses, where the flooding of yards with faecal matter during heavy rains, and where dilapidated and tumbledown dwellings that shelter poor undernourished and anaemic people, are the order of the day. I have no doubt that the same train of events that occurred when the Woodbrook Sub-district was sewered will repeat itself when the East Dry River and Belmont Sub-districts are sewered. There will be an immediate reduction in the number of cases of infectious diseases especially the bowel-filth diseases like typhoid fever and diarrhoea and enteritis, the direct result of the elimination of the privy cesspit system which permits faecal matter and often infected faecal matter to be retained in close proximity to dwelling houses. With the reduction and eventual disappearance of this type of infectious disease, with the improved water supply, and with the widening of streets and the grading and paving of tracks and passages that sewerage entails, the general health and sanitation of these areas will undergo immediate and marked improvement and the residents take on a new lease of life.

Scavenging and Refuse Disposal

This is a service that is rendered by the Municipality to the burgesses of the City of Port-of-Spain in keeping with the provisions of the Public Health Ordinance and it represents one of the most important functions of the Urban Sanitary District seeing that refuse, if allowed to remain scattered and not properly collected and safely disposed of, can be the means whereby a series of dangerous nuisances can be created, and in which vermin which carry dangerous infectious diseases can breed. The sweeping of the streets, footways and slipper drains, as well as the flushing and cleansing of surface and underground drains is done by the daily-paid workers of the various Divisions of the City Engineer's Department and the collecting, transporting, and disposing of the refuse arising therefrom as well as the refuse from individual dwelling houses and business places is done by the loaders and scavenging trucks of the Transport and Cleansing Unit of City Engineer's Department under the direction, supervision, and control of the Manager, Transport and Cleansing Department.

There can be no denying the fact that under normal circumstances a good job of keeping the City clean is done by these workers and when they are prepared to pull their full weight it is true that the City does present the clean and sweet appearance that is the objective of the City Engineer's Department, and that the healthy and sanitary atmosphere, which is the aim of the Public Health Department, does pervade the Urban Sanitary District. But speaking generally there leaves much to be desired ; this is due to a combination of difficulties, difficulties that are well known to the Overseers of the Divisions and the Additional Engineer as well as to the Manager, Transport and Cleansing Department, and to eliminate which great effort is being expended. Not all the sweepers are thorough in their sweeping, the broom is often dragged rather than pushed, the footways are more often omitted than swept, and the refuse from the slipper drains at the sides of the street is sometimes swept into the underground drains to cause stagnation of water and creation of nuisance therein. Householders often dispose of their refuse by dumping on the footways or actually in the drains or in the street itself ; invariably they put out their uncovered or loosely covered dustbins,

when one is available, their cartons and boxes on the footways at night to become easy prey to the depredations of cats and dogs which are known to overturn bins, boxes, and cartons in their rummaging for bits and pieces, scraps and morsels of food. Occupiers and owners of certain business places, particularly in certain sections of the down-town area are known to dump their refuse in the streets contrary to the bye-laws, in spite of persistent requests to desist from this insanitary practice, without any regard for the fire hazard that straw and waste paper give rise to and the nuisance of stagnant water and offensive smell that they create. In addition there are certain areas of the City where scavenging is not done on Sundays and those areas of the Belmont and East Dry River Sub-districts present a most untidy appearance when bins which are already full on Saturday night have to wait until Monday morning to be emptied, and when, as a direct result, the footways, the slipper drains of the streets, and the streets themselves are littered with Sunday's refuse. The remedy lies to a great extent in the hands of the scavengers themselves, in the hands of the householder and the merchant, and to a lesser extent with the executives of the Department concerned. Enough experience has now been gained as to the relative merits of the process of prosecution in Court and of the process of health education to enable us to arrive at the conclusion that only by means of an intensive health education programme directed to the particular people concerned will the necessary improvement be achieved, and that is what the Public Health Department has set out to do. All the year round it is the duty of the Sanitary Inspector of the District to keep impressing upon the individual householder and merchant the importance of the proper collection and disposal of refuse in accordance with the provisions of the bye-laws, and once a year for the past four years a Keep the City Clean Week has been organised in collaboration with the Junior Chamber of Commerce during which an intensive programme of health education by means of posters, leaflets and bumper strips, by motorcades in various sections of the City, by open air film shows and lectures at selected points in the sub-districts, by cinema slides and spot announcements, and a round table broadcast on the radio, is carried out.

In the year under report " Keep the City Clean " week was held in September from Monday the 12th September to Friday 15th September, and the Public Health Department with the active help and support of the Chairman of the Local Sanitary Authority, His Worship the Mayor, and the Councillors of the respective Wards, collaborated with the Junior Chamber of Commerce in carrying out a programme which one felt sure was a great success whilst it lasted, but which we were convinced should be held oftener than once a year if the message we wished to convey was to sink home.

In the process of education our own workers must not be forgotten and the scavengers of the various Divisions and loaders and truck drivers of the Transport and Cleansing Department must be made to realise that they have a responsibility in this important matter which they must discharge conscientiously and willingly and that courtesy and goodwill, honesty and sincerity will achieve more success with householders and merchants than rudeness and truculence.

It would appear that the time is ripe for the Municipality to resort to the use of a better and more up-to-date type of scavenging truck and that vehicles of a greater capacity, loaded from the rear, and provided with mechanical equipment for compressing the refuse, should be made to take the place of the existing scavenging trucks of comparatively small capacity and which are loaded from the side. With the larger trucks much more refuse can be transported at each trip to the Dump, the refuse is completely enclosed on all sides, and the possibility of overloading of open trucks, with the consequent inevitable scattering by wind, or the littering of the streets with refuse as the vehicle proceeds to the Dump, does not and cannot arise.

The Eastern Dump

This Dump situated at the eastern limits of the City in the Shanty Town Area and adjacent to the Beetham Highway remained *in statu quo* during the year under report in spite of various attempts to change its location because of the establishment of an Industrial Estate in the area in question by the Industrial Development Corporation. But it is certain that a different site will have to be found for the dumping and disposing of the City's refuse as the whole lot of reclaimed land in this vicinity south and north of the Beetham Highway is earmarked for industrial and business purposes, and already warehouses and similar industrial plants are rapidly making their appearance.

No new development insofar as the Dump is concerned can be recorded in the year under report. " Controlled tipping " has been maintained, with occasional gaps in the controlled part of the tipping due to the breakdown of the bulldozing apparatus and the lack of earth for covering the refuse, but it can be stated with certainty that on the whole refuse has been disposed of in the proper manner. Almost invariably it has been deposited at the advancing edge of the Dump and compressed and covered with a nine-inch layer of earth before the day's work has come to an end. Under these conditions the creation of nuisance has been minimal and no major complaint of fly breeding or of rat or mosquito nuisance has reached the Department. Spontaneous fires have occurred but they have not been productive of any damage and, when necessary, they have been speedily brought under control. The customary difficulties with private scavenging trucks and with unauthorised visitors

to the Dump in search of salvable material for the purpose of trade to which I have made constant reference in previous annual reports persisted during the year under report and will, of course, continue to crop up on an open dump where no sort of police supervision or control exists.

SANITARY INSPECTION OF THE DISTRICT

Premises and Occupations controlled by Bye-laws and Regulations

Food

The greatest single problem confronting the Public Health Department is the question of food ; the quality and standard of food ; the quantity of food that is sold within the Urban Sanitary District; the people who prepare, handle and sell food ; the premises where food is prepared, handled and exposed for sale ; the manner in which food is prepared, handled and exposed for sale, and last but not least the various places, permanent as well as temporary, where food is sold to the general public. This, as can be gauged, is a problem of no small magnitude, and generally it can be said that the Department does not feel satisfied with the existing state of affairs and is of the opinion that there is much leeway yet to be made up. It cannot be denied, however, that much has been achieved since the Bye-laws with respect to the Sale of Foodstuffs came into force in August, 1937, but it has been a slow, arduous, and up hill task ; the difficulties encountered in securing good, clean, sanitary and wholesome food have been enormous ; co-operation on the part of manufacturers, merchants, market vendors, and food handlers generally has been slow ; and last but not least the conscience of the buying public has not yet been aroused to the point where only the good, clean, and safe product can and does appeal to and find favour with them.

There is a feeling of disappointment in the Department that progress has been so slow and that our efforts have so little to show and sometimes a feeling of frustration that our best laid plans have gone astray because of the lack of support. There is still to be seen in open places in the various sub-districts of this City food that is of poor quality, prepared under insanitary conditions by people whose cleanliness of person and clothing falls far short of the standard that is expected and demanded, and exposed to contamination by dirt, dust and vermin and by the droplets and excrement of the buyers and vendors themselves ; there are still far too many premises where poor quality food is prepared and exposed for sale and sold which are unsuitable, dirty, dilapidated and insanitary in the extreme, and where people of the lowest intelligence whose standard of cleanliness and personal hygiene leave much to be desired prepare and sell food ; there are still too many institutions, some unfortunately under the care and control of the Local Authority, food depots and other business places where food is exposed for sale under conditions that conduce to contamination and sold by vendors whose personal habits are unsatisfactory and whose clothing is dilapidated and insanitary. The question may properly be asked : Are the bye-laws efficient and satisfactory ? And if they are, why are they not strictly enforced ? The answer is : the existing bye-laws are not satisfactory and no bye-law can be enforced if there is a general lack of appreciation of the objective aimed at by the bye-law and there is not full co-operation by all concerned, by those who administer the law, by those who have to direct that the law be enforced, and by those who actually enforce the law. There are diffiulties unsurmountable at times in the way of getting the errant owner or vendor to Court, difficulties that I have detailed in previous reports, and when at last convicted often the punishment does nothing more than encourage the crime. New bye-laws in which the gaps that are present in the existing bye-laws have been filled are, at the moment I write, in draft form and will soon it is to be hoped, become law. The Department proposes in the coming year, as soon as approval has been given to the modified proposals of the Organisation and Methods Report by the Central Government, to increase the strength of the Food Inspectorate and to embark upon a vigorous campaign of health education of food handlers, vendors, and consumers in all places where food is prepared, stored, exposed for sale and actually sold. All our efforts will come to nought, however, if full co-operation on the part of all concerned is not forthcoming ; and unless the " example comes from the top ", unless we are determined to make a clean sweep of all hole-and-corner foodshops and restaurants, unless the larger firms are prepared to provide up-to-date modern equipment with food exposed in refrigerated display cabinets only, and to make available to the food handlers proper dressing rooms, satisfactory washing facilities, and the uniforms and overalls that are indispensable to the preparing, storing and selling of good clean and wholesome food, and particularly, unless the misplaced sympathy embodied in the phrase " oh everyone is entitled to make a living " undergoes a radical change insofar as food for sale to the general public is concerned, we shall not succeed in convincing visitors to these shores that food in the City can be eaten without the fear of any subsequent repercussion. Seeing that we depend to such a large extent on imported food to satisfy our needs, it is imperative, of course, that a strict eye be kept on the quality of the imported article, and it is with great satisfaction that I record that the amount of imported food that is of such quality and in such a state on arrival at the port as to warrant condemnation has diminished to an appreciable extent, ever since it has been found necessary to post a Food Inspector on the Wharves to inspect food on arrival.

Sale of Foodstuffs Bye-laws

Registration of Shops (1960)

Provision, Meat, and Spirit Shops, Restaurants, Hotels, Refreshment Parlours, Dairies	192
Ground Provision and Fruit Shops	3
Bakehouses	2
Confectionery Shops	—
Aerated Water Factories	1
Other Factories	5
Total 1960	203
Total 1959	290

Registration of Vendors (1960)

Bread and Cakes	14
Confectionery	23
Cooked Food including Fries, Souse, &c.	50
Ice Cream and Palets	16
Sweet Drinks	9
Vegetables, Greens, Fruits	56
Miscellaneous	76
Total 1960	244
Total 1959	287

Number of Badges issued to Itinerant Vendors 1960—244 (287—1959)
Number of Oyster Vendors Licensed under Sale of Oysters Bye-laws—0 (3—1959)

Sale of Milk Bye-laws

Dairies and Milk Shops (1960)

	Cowshed Licences Issued
City proper	—
East Dry River (Unsewered)	—
Belmont (Unsewered)	—
Woodbrook (Sewered, but premises not all connected with the Sewerage System)	—
St. James (Unsewered)	—
Total 1960	—
Total 1959	5

Dairymen's Licences (1960)

Dairymen's Licences issued to Cowkeepers and other purveyors of milk ...	—
Dairymen's Licences issued to Shops, Milk Bars and Refreshment Parlours	16
Total 1960	16
Total 1959	27

Milk Vendors' Licences and Badges (1960)

	Milk Vendors' Licences	*Cow Tuberculin Tested*	*Badges*
Port-of-Spain	16	—	—
Out-Districts	—	—	—
Total 1960 ...	16	—	—
Total 1959 ...	29	133	11

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED, 1960

Apples	...pounds	...	21	Ham (smoked)	...pounds	...	20,498
Baking Powder	...pounds	...	38	Ham (canned)	...pounds	...	3,116
Biscuits	...pounds	...	15	Meat Products	...pounds	...	3,769
Bread	...pounds	...	5	Milk (powdered)	...pounds	...	112
Butter	...pounds	...	25	Milk (canned)	...pounds	...	252
Cheese	...pounds	...	1,426	Nuts	...pounds	...	110
Cereals	...pounds	...	104	Onion	...pounds	...	14,972
Confectionery	...pounds	...	14	Peas (dried)	...pounds	...	4,806
Cornmeal	...pounds	...	588	Pork (pickled)	...pounds	...	13,200
Fish (Canned)	...pounds	...	31	Plantains	...pounds	...	6
Fish (Smoked)	...pounds	...	54	Preserves	...pounds	...	103
Fish (dried)	...pounds	...	290	Potatoes	...pounds	...	12,100
Fish (wet)	...pounds	...	1,187	Rice	...pounds	...	344
Fish (shell)	...pounds	...	2,000	Salt	...pounds	...	79,874
Flour	...pounds	...	75,201	Sausage (canned)	...pounds	...	524
Fruit (dried)	...pounds	...	530	Vegetables (canned)	...pounds	...	88
Fruit juices	...pounds	...	10	Vegetable Juice	...pounds	...	23
Garlic	...pounds	...	30				

Anti-Rat Measures

Measures directed to the destruction of rats and mice and to the abatement, generally, of nuisances caused by rats and mice in dwellings and business places are undertaken by the Anti-Rat Unit and the position here is that the Unit continued to function satisfactorily during the year under report. The Unit is deployed in the 9 anti-rat districts into which the City is divided and in each of these districts 1 supervisor and 3, sometimes 4, men operate. The results of the previous day's operation are collected and disposed of, fresh baits—prebaits or post baits or poison baits—laid in the morning session, and surveys of individual premises with a view to detection and elimination of rat nuisance take place in the afternoon session.

No major complaints *re* the prevalence of rats or mice were received in the year under report and it would appear, judging from the small number of complaints and from the results of the operations of the Unit, that the rat and mice population is being kept down to safe limits, i.e. within limits that would make it difficult for an epidemic of rat-borne disease, if perchance introduced, to spread rapidly throughout the length and breadth of the City.

The work of this Unit is greatly appreciated by the Department and by the Council as a whole, but the rat catchers still feel that they are under a stigma insofar as the burgesses are concerned, and it is difficult to get younger men with a good elementary school education to work in the Anti-Rat Unit in spite of our efforts to make them realise that the job of rat catching is work of a high level that entails the possession of a certain amount of scientific knowledge. As a matter of fact whenever a new man is taken on he first has to undergo a period of preliminary training in the various aspects of rat work : the characteristics and habits of the rat, the identification of species, the signs of rat infestation, the evidence of the damage and destruction they cause, the measures adopted for the destruction of rats, the different kinds of bait, rat poisons, rat traps, how to dispose of rats, &c., before he is allowed to do field work under the direction and control of the supervisor of his gang. A greater appreciation of the value of anti-rat work on the part of the general public and a little less harsh dealing by the householder could go a long way towards making the work more attractive and so induce intelligent young lads who have just left school to join the Unit.

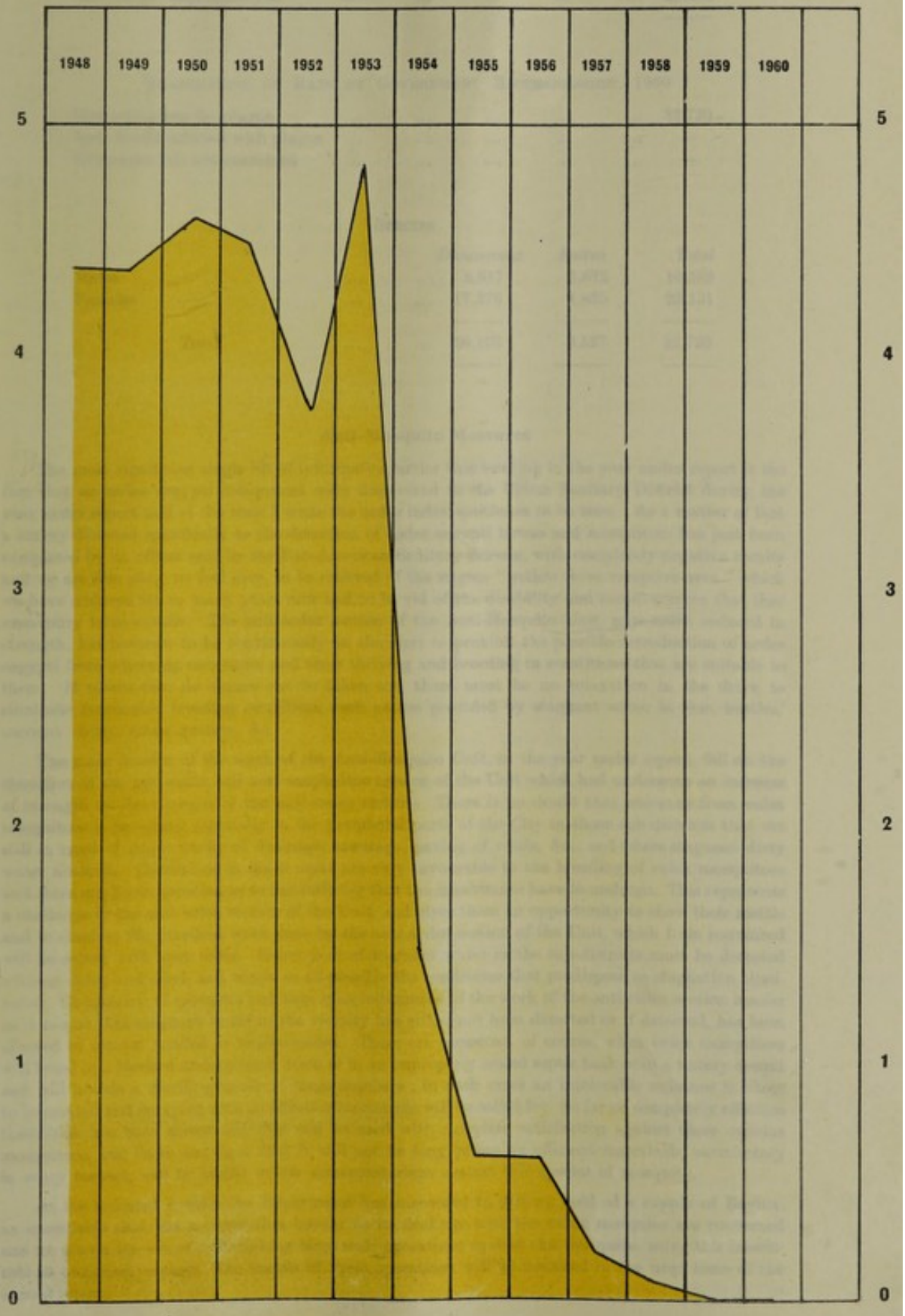
There was no change in routine in the year under report from that described in my report for 1959 and the same plan of campaign and the same method of procedure were followed and the same poisons as therein detailed were used. More rats, however, were destroyed in 1960 than in 1959, 32,720 as compared with 30,009, but fewer mice were caught and destroyed in 1960, 23,413 as compared with 26,985 in 1959.

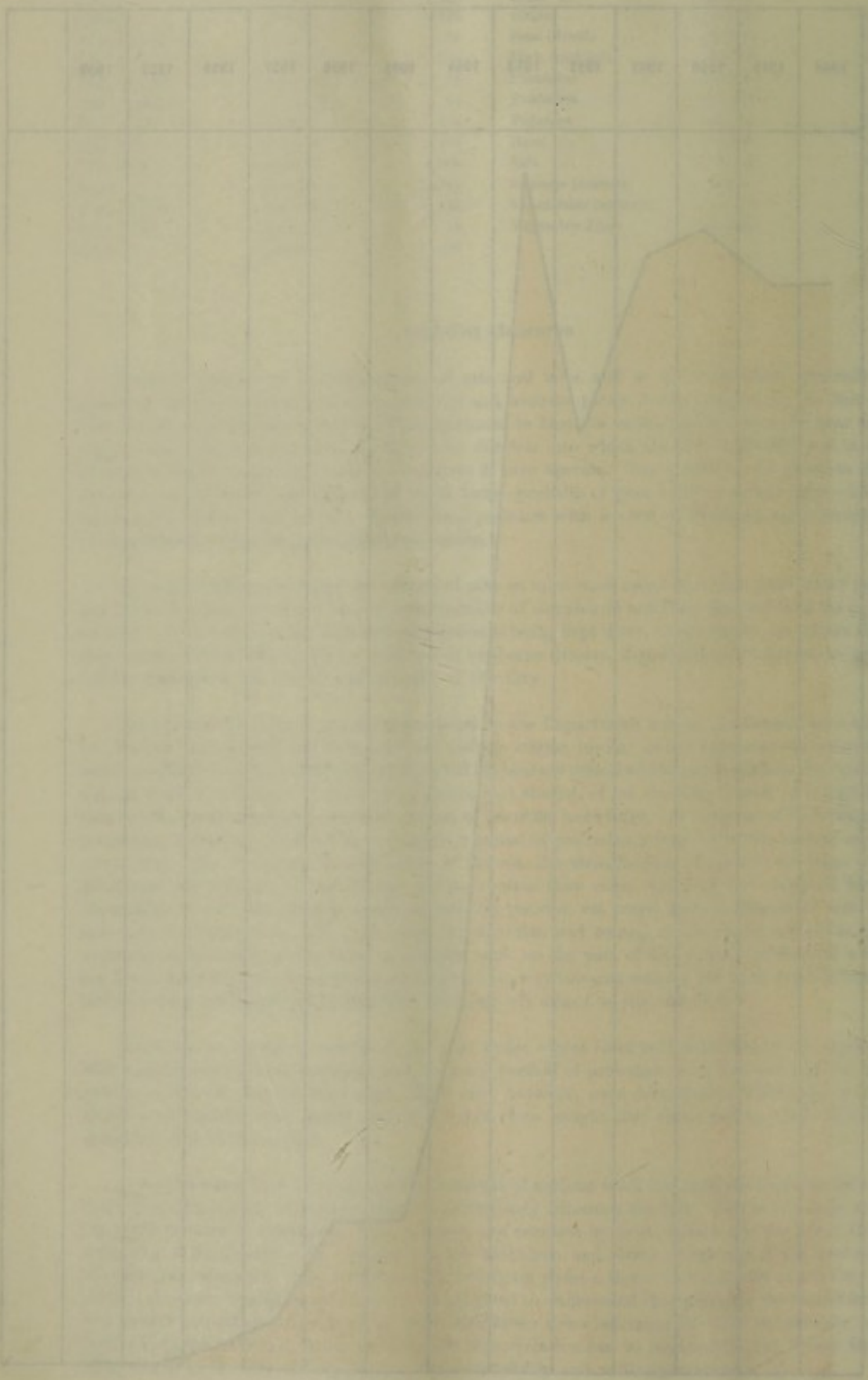
It is to be noted that, as usual, a certain amount of anti-rat work was performed by the Anti-Rat Unit of the Department in areas outside but immediately adjoining the City. This is to a large extent inevitable because of complaints of rat nuisance and requests by householders and the Local Health Authority of the County of St. George to render assistance, and above all because of the over-riding fact that rat nuisance in these suburbs of Port-of-Spain poses a threat to the health of the City and should, of course, be eliminated at source. I am given to understand that plans for the establishment of a proper anti-rat unit for service in these semi-urban areas adjoining the City are actually under way, but in the meantime whatever service in that direction can be rendered by the Public Health Department of the City will continue to be most readily and willingly rendered.

CHART A

Port-of-Spain

Aedes Larval Index 1948-1960





DESTRUCTION OF RATS AND MICE, 1960

Rats caught by trappers	32,720
Rats bought	—
Total	32,720
Mice caught and destroyed	23,463

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGIST, 1960

Rats examined for plague	32,720
Rats found infected with plague	—
Immature rats not examined	—

SPECIES

	Decumanus	*Rattus*	*Total*
Males	8,917	1,672	10,589
Females	17,276	4,855	22,131
Total	26,193	6,527	32,720

Anti-Mosquito Measures

The most significant single bit of information under this heading in the year under report is the fact that no aedes aegypti mosquitoes were discovered in the Urban Sanitary District during the year under report and at the time I write the aedes index continues to be zero. As a matter of fact a survey directed specifically to the detection of aedes aegypti larvae and mosquitoes has just been completed by an officer sent by the Pan-American Sanitary Bureau, with completely negative results and we are due soon, we feel sure, to be relieved of the stigma " yellow fever receptive area " which we have endured for so many years now and to be rid of the disability and inconvenience that that unsavoury label entails. The anti-aedes section of the Anti-Mosquito Unit, now much reduced in strength, has however to be continuously on the alert to prohibit the possible introduction of aedes aegypti from adjoining territories and their thriving and breeding in conditions that are suitable to them. It means that no chance can be taken and there must be no relaxation in the drive to eliminate favourable breeding conditions such as are provided by stagnant water in tins, bottles, coconut shells, eaves gutters, &c.

The main burden of the work of the Anti-Mosquito Unit, in the year under report, fell on the shoulders of the anti-culex and anti-anophelene section of the Unit which had undergone an increase of strength at the expense of the anti-aedes section. There is no doubt that nuisance from culex mosquitoes is prevalent especially in the peripheral parts of the City in those sub-districts that are still in need of major works of drainage, sewerage, paving of roads, &c., and where stagnant dirty water abounds. Conditions in those areas are very favourable to the breeding of culex mosquitoes and there can be no question as to the suffering that the inhabitants have to undergo. This represents a challenge to the anti-culex section of the Unit, and gives them an opportunity to show their mettle and to emulate the excellent work done by the anti-aedes section of the Unit, which I am convinced will be seized with open arms. Every pool of stagnant water in the sub-districts must be detected without delay and oiled, and where at all possible the conditions that predispose to stagnation eliminated. Complaints of mosquito nuisance is an indictment of the work of the anti-culex section insofar as it means that stagnant water in the vicinity has either not been detected or if detected, has been allowed to remain unoiled or uneliminated. There are occasions, of course, when culex mosquitoes will breed in a blocked underground drain or in an improperly sealed septic tank or in a watery cesspit and will invade a dwelling house in large numbers ; in such cases an intolerable nuisance is likely to be created and spraying with an effective insecticide will be called for. So far no completely effective insecticide has been discovered that can be used with complete satisfaction against these culicine mosquitoes, but there are signs that it will not be long before an efficient insecticide, satisfactory in every respect, will be added to our armamentarium against this species of mosquito.

At the moment I write the Department has succeeded in getting hold of a supply of Baytex, an insecticide that has a reputation insofar as its dealings with the culex mosquito are concerned and we are on the eve of undertaking large scale operations against this mosquito, using this insecticide as our sheet anchor. The results of these operations will be recorded in the next issue of the annual report.

One fact that has emerged from the work of the Anti-Mosquito Unit in the course of its spraying operations, is that a large proportion of dwelling houses has been discovered infested with bugs, cockroaches and other vermin and as a direct result the spraying of beds, mattresses, furniture and fixtures has had to be done at the same time as the spraying of walls, partitions, &c., for mosquitoes.

LARVAL INDEX

Premises with mosquito larvae per cent. of number visited

Yearly average	1938–1942	2.1
Year	1943	3.3
	1944	5.4
	1945	6.9
	1946	7.3
	1947	5.8
	1948	4.4
	1949	4.4
	1950	4.6
	1951	4.5
	1952	3.8
	1953	4.8
	1954	1.5
	1955	0.6
	1956	0.6
	1957	0.2
	1958	0.08
	1959	0
	1960	0

INSPECTION OF EAVES GUTTERS, ETC., 1960

Number of inspections of premises	162,243
Number of inspections of eaves gutters	6,036
Number of occasions found in good order	4,965
Number of occasions found defective	1,071
Number of occasions found containing water only	1,071
Number of occasions found containing water and larvae	—
Number of occasions mosquito larvae were found in tubs, antiformicas, tin cans, &c.	—
Yards cleared of receptacles	3,794

Premises used for human habitation, Houses let in lodgings, Common Lodging Houses

There is an acute shortage of housing accommodation in the City of Port-of-Spain and residents as well as visitors to the country are hard put to it to find accommodation that can be considered satisfactory or even to find accommodation of any kind at all. This is a situation that has existed for many years now and I have made reference to this important matter in every annual report that I have written during the past ten years. Insofar as members of the working classes are concerned, the houses, shacks and hovels which they occupy in the sub-district of East Dry River and in parts of the sub-districts of Belmont and the City Proper are on the whole so dilapidated and have deteriorated to such an extent that some are on the point of collapse and indeed and in fact have actually collapsed in a few cases.

Apart from overcrowding the nuisances created by the privy cesspit system, the inadequate water supply, poor main drainage, lots that are small, narrow and badly drained, the insufficiency of open spaces, and by scavenging that is often inefficient and haphazard especially in the hilly areas, contribute to the ill-health, suffering and distress that the residents here are prone to. In fact a census of the housing situation in the Municipalities undertaken in the period July, 1957, to June, 1958, by the Statistical Department of Government confirmed the findings of the Department that there is great overcrowding in the City, the worst sub-districts being East Dry River, Belmont and the City Proper, but not very much in the way of reconstruction or even of repair was done to alleviate the situation during the course of the year under report. In fact the greatest difficulty is experienced by the Sanitary Inspectors of the Department to get necessary repairs to the roofs and floors of houses, to get privy cesspits repaired or rebuilt, or to have surface drains put in efficient working order because of reluctance, and in the case of the majority of agents, definite refusal, to do any kind of work that is likely to prolong the life of a building which they know to be in a bad state of general repair and which they are desirous of reconstructing if only it were possible to get the tenants to vacate the premises. The simplest request is hardly ever complied with and a Statutory Notice with eventual resort to the slow and cumbrous machinery of the law has in nearly every case to be served on owner or agent.

A visitor to the City might quite properly come to the conclusion that Port-of-Spain is a prosperous City and that a building boom is currently taking place, but he would evidently be confining his attention to the down-town area where reconstruction of old business places is indeed and in fact taking place, and where modern up-to-date stores, shops and such like business places are making their appearance ; but not much in the way of new housing accommodation is being provided to replace the old dwelling houses that once existed in these down-town areas which are now being clearly reserved, and rightly so, for business places only. Very few barrack buildings now remain and the few that still survive are usually hidden behind the facade of a new modern business place which encroaches more and more on the once cherished preserves of the tenants at the rear, and are destined with definite certainty to eliminate them. The large number of barrack dwellers, who once occupied the Frederick Street, Duncan Street, and Park Street, South Quay quadrangle have either been accommodated in the cottages of the Morvant Housing Estate of Government or in the flats in the Nelson Street-George Street Area erected by the Planning and Housing Commission of Government which have in part replaced the old barrack ranges. Numbers of these tenants, however, still continue to occupy the building in Ajax Street erected by Government to serve as a " decanting centre " for former occupants of barrack buildings ; they await the erection of flats that have been planned, long ago, for the George Street-Prince Street Area but which are apparently taking a much longer time than was anticipated because of the limited allocation of funds each year to the Planning and Housing Commission for this specific purpose.

Happily at the moment I write these flats are an accomplished fact and they are occupied mainly by tenants of the self-same area who had been transferred to the decanting centre on Ajax Street to await their erection. Again at the moment I write the Mango Rose project is taking shape. This quadrangular area bounded by Piccadilly Street, Duke Street, Jackson Place and Jackson Hill comprises a set of old dilapidated dwellings on small narrow lots with cesspits cheek by jowl, with inadequate drainage and inaccessible entrances, which is ripe for demolition if only alternative accommodation could be found for the numbers of residents who inhabit the area. Flats are now being erected in the Hirondelle Street Area of Morvant, designed specifically for the purpose of accommodating the tenants who reside here and when this has been accomplished Government will proceed to acquire the area and erect flats on it under modern up-to-date conditions.

Flats are also proposed in the western limits of the City to accommodate the tenants who have been displaced by the widening and straightening of the Western Main Road in a project that is in hand at the moment, but this matter will be referred to in greater length in my next annual report.

Dwelling houses in small numbers are making their appearance in other parts of the Urban Sanitary District, in the Woodbrook Area, and especially in the recently laid out area west of the Mucurapo Pumping Station and south of O'Connor and de Verteuil Streets, in St. James and in Cocorite, and to a certain extent in Belmont, but this only serves to demonstrate the magnitude of the problem seeing that these houses are earmarked by prospective owners and tenants long before they are actually erected and are sometimes occupied even before they are completed.

John John and Shanty Town

The slum areas of John John and Shanty Town still remain intact at the moment I write and continue to exhibit the insanitary features and anti-social practices for which they have earned unending fame in the annals of the history of the City of Port-of-Spain ; but the activity that was exhibited by planners and statisticians during the year under report and the surveys that were undertaken as well as the definite efforts that are being made, for the time being on paper only true enough, but with such persistence and determination, convince one that the days for the continued existence of John John and Shanty Town are numbered and it will not be long now before the inhabitants of these slums are provided with suitable alternative accommodation, the slums eliminated, the ravines and primitive water courses that traverse these areas widened and paved, and the areas themselves properly laid out and built upon and used for the specific purpose for which they were earmarked. Certain it is that it is impossible to contemplate an Industrial Estate, a large wholesale and perhaps a retail market, offensive trades that are zoned, and another and even larger Dump in the Shanty Town area in close proximity to the hovels and shacks, the filth and squalor, the pigs and stray dogs, the bottles and scraps of Shanty Town, adjacent to the junction of the Fly-Over Bridge and the Beetham Highway.

During the year under review a drainage project designed to eliminate the inadequate drainage facilities existing in this and the adjoining areas caused by the regular flooding of the La Pena Ravine, and the general unsatisfactory drainage of the area as a whole, was formulated and at the moment I write is being actively prosecuted.

THE HEALTH EDUCATION OF THE DISTRICT

I have in previous reports stated that we consider the health education of the citizens of Port-of-Spain one of the most important functions, if not the most important function, that the Public Health Department has to perform. I have already indicated that more and more emphasis is going to be laid on the whys and wherefores for the health measures that we are adopting and are requesting people to adopt in order that co-operation and understanding should be immediately forthcoming, than on the police methods of enforcement that we have inevitably to resort to in certain cases. We are convinced that the large majority of citizens are anxious and willing to comply with directions to abate nuisances and/or to execute works of a sanitary nature if only they could be persuaded that it is in their own interests and in that of the public at large for them to do so; this we can do and have done by the methods of persuasion and explanation, of practical demonstration, and of appeal to the senses, methods that form the basis of health education.

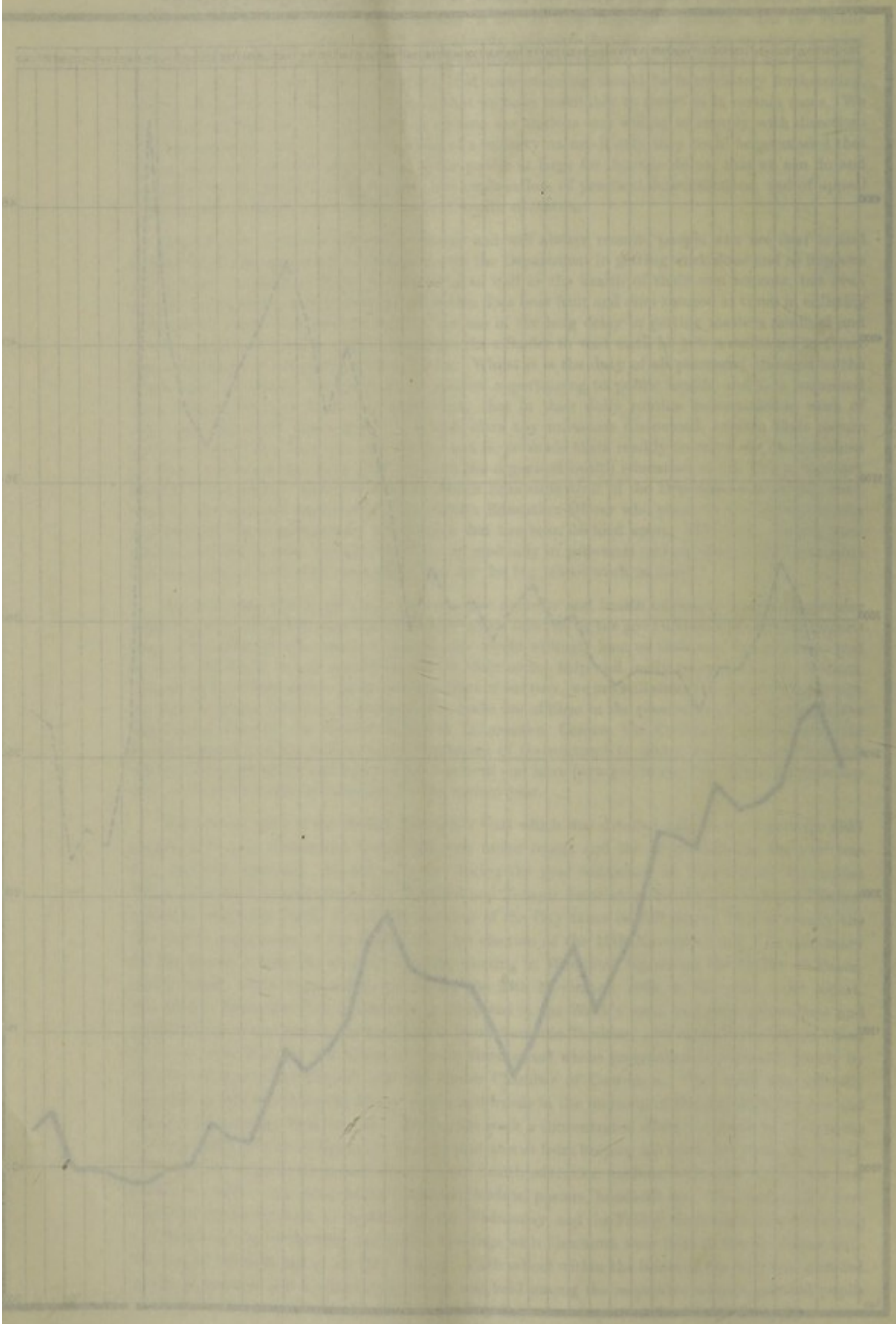
A hard core of chronic offenders remains and will always remain, people who are deaf to and unmindful of, any appeal for co-operation with the Department in getting work done and so improve the sanitary condition of their own property as well as the health of their own tenants, but even here we are pleased to find that health education does bear fruit and does succeed at times in enlisting co-operation where even the law fails us because of the long delay in getting matters finalised and of the insignificant penalty which encourages the offender to wait until he gets a summons to Court before he thinks of complying with a Notice. Whilst it is the duty of all personnel attached to the Department to educate the public in all matters appertaining to public health, and it is impressed upon District Sanitary Inspectors particularly that in their daily routine house-to-house work of inspection they must demonstrate to householders any nuisances discovered, explain their nature and the dangers that they can give rise to, and so persuade them readily to carry out the measures for their abatement that have been detailed, the organised health education of the Urban Sanitary District is the special " preserve " of the Health Education Unit of the Department under the care, control, direction and supervision of the Health Education Officer who plans its activities generally and prepares the programme for any project that has been decided upon. This Unit, starting from scratch as it did in 1956, has been building up gradually in personnel and equipment, and gets more and more geared with each succeeding year for the big job of work in hand.

We have been able to purchase our own tape recorder and health education van and generator which supplied a long-felt want but which was in part relieved by the good offices of the Health Department of Government who, even at short notice, would willingly loan us their van and generator and to whom we desire to pay special thanks for their active help and ready co-operation at all times. Though we have been able to purchase some films of our own, we are still short of a proper film library; we were fortunate, however, in being able to make use of films in the possession of the United States Information Service, the United Kingdom Information Centre, the Caribbean Commission, the British Council and the Information Department of Government to whom we tender our heartfelt thanks. Films which we had on order have arrived and have been put to good use in the programmes that we have been able to formulate for the current year.

The routine work of the Health Education Unit which was detailed fully in my report for 1957 continued to gain momentum during the year under report and the programme for the year was duly and fully executed. Special activities during the year comprised (*a*) Tuberculosis Prevention Week, an annual programme by the Trinidad and Tobago Association for the Prevention of Tuberculosis in which the Public Health Department of the City takes its full share. This is usually the first public engagement of the Mayor after his election of the 15th November and it is customary for the Mayor to take the chair at a public meeting in Woodford Square on the Friday of Tuberculosis Week, which happened to be Friday the 25th November, 1960, in the year under report. The Health Education Unit in addition participated in the Week's radio and press programme and supplied posters and leaflets for distribution throughout the Territory ; (*b*) Keep Port-of-Spain Clean Week—a week that has now become a yearly feature and whose programme is organised jointly by the Port-of-Spain City Council and the Junior Chamber of Commerce. The week was officially launched by His Workship the Mayor with a motorcade in the morning of Monday 23rd October and it ended on Saturday 29th October. During the week a concentrated effort was made to bring home to every citizen of Port-of-Spain the benefits that accrue from keeping his home, his yard, the streets, parks and open spaces clean, and every known health education medium was made to play its part during the week : the press, radio, filmshows, leaflets, posters, handbills &c. The motorcades were organised during the week on the Monday, the Wednesday, and the Friday, each motorcade traversing a different section of the City and public meetings with filmshows were held in the St. James Sub-District, in Belmont and in the City Proper. Each school within the limits of the City was included in the programme and a school competition was held among the respective schools, selected pupils of each school having to submit an essay on some important aspect of the Week's campaign.

CHART B
Port-of-Spain
Birth Rates & Death Rates per 100,000 Population 1920-1960

* Adjusted Rate (1958) Births and Deaths of City Residents only



The Unit participated also in the programme organised by the Trinidad and Tobago Association for Mental Health, a programme of health education directed to the prevention of alcoholism in the City ; and also in the Woodbrook—St. James Clean Up Drive, which was conducted by a Committee of men and women drawn from the Churches, Schools, Welfare Bodies and other citizens of the Sub-districts concerned and whose objective was to insure the appreciation of the benefits to be gained by the application of the principles of personal and environmental hygiene to the community as a whole.

During the latter half of the year under report Mr. H. de Four, Health Education Officer was away in Canada and the United States of America on a study leave course which took him from New York in the United States of America to Winnipeg in Canada. Mr. H. de Four was able to see health education projects and meet health education people in the field, and all in all his study leave course was one that was brimful of activity and undertaking in the field of health ecucation both in Canada and America.

Mr. M. Holdip, who has now become the Assistant Health Education Officer, returned to Trinidad in August after he had completed the Health Education Course of the University of London and obtained the Diploma in the methods and content of health education of the University of London. He immediately was assigned to the Health Education Unit, which was without a recognised head due to the absence on study leave of Mr. H. de Four in Canada and the United States of America, and was able to carry on, direct, and control the work of the Unit until Mr. de Four returned in February of the current year.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

(Unless otherwise stated, rates are per 100,000 *population)*

	1921	1958	1959	1960
Area of City—acres (pastures and open spaces included)	1,793	2,550	2,550	2,550
Estimated population (mean)	61,386	121,150	99,350	94,100
Density of population (persons per acre) ...	34.2	47	39	37
Total live births	1,687	2,592	2,627	2,498
Birth rate	2,728	2,139	2,644	2,655
Still births registered	154	66	57	73
*Still birth rate	91.3	25.46	21.70	2,922
Total deaths	1,659	1,147	1,179	1,040
Death rate	2,683	946	1,187	1,105
Natural increase of population	28	1,445	1,448	1,458
Death under one year	287	171	158	141
*Infant mortality rate	170.12	61.97	60.53	56.44
*Maternal mortality rate	—	3.85	3.04	2.80
Death rates :				
Notifiable infectious diseases	621	72	82	104
Pulmunary tuberculosis	249	7	6	2
Tuberculosis (other forms)	26	2	—	—
Enteric Fever	125	2	—	1
Pneumonia (all forms)	197	49	70	99
Bronchitis	136	14	11	9
Diphtheria	2	2	2	1
Malaria	89	—	—	—
Syphilis	21	14	13	13
Diarrhoea and enteritis	191	49	69	61
Influenza	26	1	34	—
Ankylostomiasis	15	—	—	1
Bright's disease and nephritis	209	18	18	22
Diseases of the heart and blood vessels	265	229	301	276
Diseases of the nervous system including cerebral haemorrhage	170	136	158	151
Cancer and other malignant diseases	63	98	114	131

* Per 1,000 births.

Census Population of City—April, 1946—93,198: April, 1960—Preliminary Count—91,340.

Colony's Mean Population—826,900.

Acreage and Population

The size of the City of Port-of-Spain underwent no change in the year under report and continues to be 2,550 acres, such as it has been since 1949 when the 168 acres of the lands which the City reclaimed and which are located between Wrightson Road and the King's Wharf—Dock Site Area were included within the limits of the City. These lands like all reclaimed lands are the property of the Central Government but being now within the City are subject to the jurisdiction, sanitary and otherwise, of the City Council. In 1917 when the Council was duly constituted the Local Sanitary Authority for Port-of-Spain the area of the City inclusive of parks and open spaces was 1,793 acres. To this acreage of 1,793 in 1917 there have been added 114 acres Mucurapo Lands in 1932 ; 83 acres Gonzales Place in 1935 ; 49 acres St. Clair Experimental Station Lands in 1937 ; 268 acres St. James and 75 acres Cocorite in 1938. The 279 acres of the Queen's Park Savannah are included in the City and forms an important part of the original 1,793 acres mentioned above. It will thus be seen that the size of the City has increased by 759 acres in 43 years.

It is most important, of course, that an accurate estimate of population be arrived at during inter-census periods by the use of methods than can be relied upon and that during a census an accurate count of the resident population be made because without accurate figures the various rates which are based on the population figure would be completely false and misleading and as such could not be properly compared with similar rates for previous years and particularly with similar rates for cities in other tropical and semi-tropical or temperate climates of similar size. A census was taken on the 7th April, 1959 in Trinidad and Tobago as well as in other territories of the British West Indies. At the moment I write the figures for the population of the City was stated to be 94,400 being 91,340 (preliminary count) in 1959, and 94,100 in 1960. The census population of the City was found to be as follows : in the year 1921, 61,580 ; in the year 1930, 70,334 ; in the year 1946, 93,198.

The estimated mean population of the Territory in the census year was 826,900 (preliminary count) which gives the City a percentage of 11.04 of the population of Trinidad and Tobago.

Birth and Birth Rates

The returns received at the Public Health Department in the year 1960 and which are sent to the Department by the District Registrars in the various sub-districts of the City and by the Superintendent of the General Hospital, Port-of-Spain, showed that 2,498 live births occurred in the City, in other words 2,498 infants were born alive in 1960 of mothers who resided for at least six months previous to the date of birth in the City. Compared with the corresponding 2,627 in 1959 it means that 129 fewer births were registered, a figure that cannot be considered significant unless it is certain that there were more mothers resident in the City in the year 1960 than in the previous year 1959. This gives a birth rate of 2,655 per 100,000 population as compared with 2,644 per 100,000 population in 1959, an increase which is due almost entirely to the reduced population figure which we are using as denominator. During the last five years a determined attempt has been made to get greater accuracy in the figure for the birth rate of the City by requesting District Registrars to insist that the addresses of parents during the previous six months be inserted in birth returns from nursing homes and other institutions within the limits of the City and even in the case of births occurring in private dwelling houses of the City, as it is a well known fact that quite a number of mothers go to the General Hospital and to the City's nursing homes and even to private dwellings to give birth to their infants.

Death and Death Rates

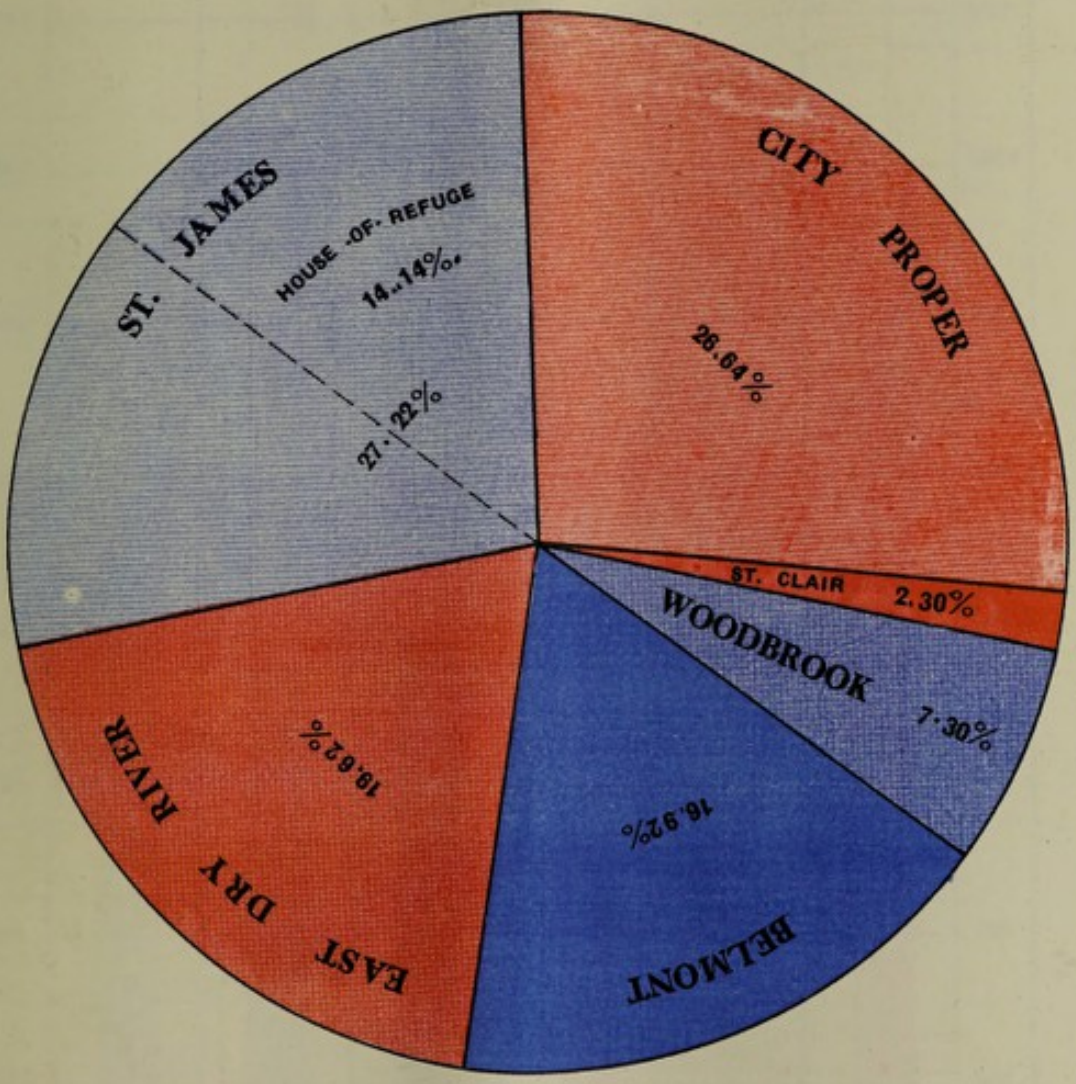
Death returns showed that 1,040 deaths of residents, who lived during the six months previous to their death in the City occurred during the year 1960 as compared with 1,179 in the year 1959, a decrease of 139 which is almost certainly due to the lowered figure for the population of the City which has been given us by the Statistical Department of Government. The death rate per 100,000 population worked out at 1,138 as compared with 1,187 in the previous year a figure which is due to the much lower population figure that has been given us and on which again too much reliance cannot be placed until we are in possession of the accurate population figure such as the census for 1960 will provide.

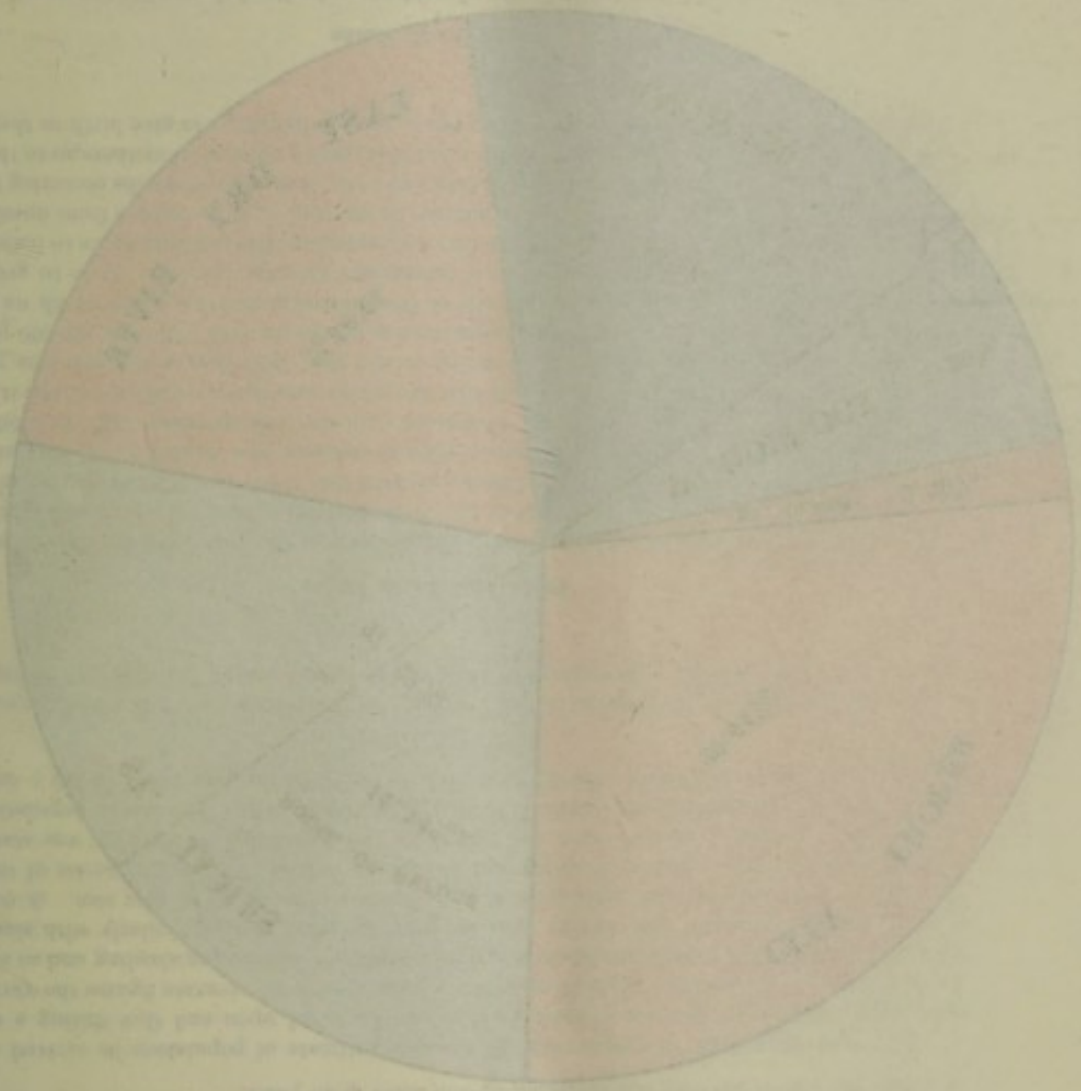
On the whole it can be stated that the rates that are compiled from death returns can be regarded as being more accurate than those compiled from returns that relate to births, notifications, &c., seeing that no burial can take place or does take place unless the death has been registered and that many deaths have to be investigated by the Sanitary Inspectors attached to the Department, and the fumigation of the premises where death occurred has to be supervised by them. Besides, dating back to the very beginning of registration it has been customary for District Registrars to insert in their returns to this Department the correct address, whether within the limits of the City or outside the limits of the City, of the deceased.

CHART C

Port-of-Spain

Percentage Distribution of Deaths in Sub-Districts of the City 1960





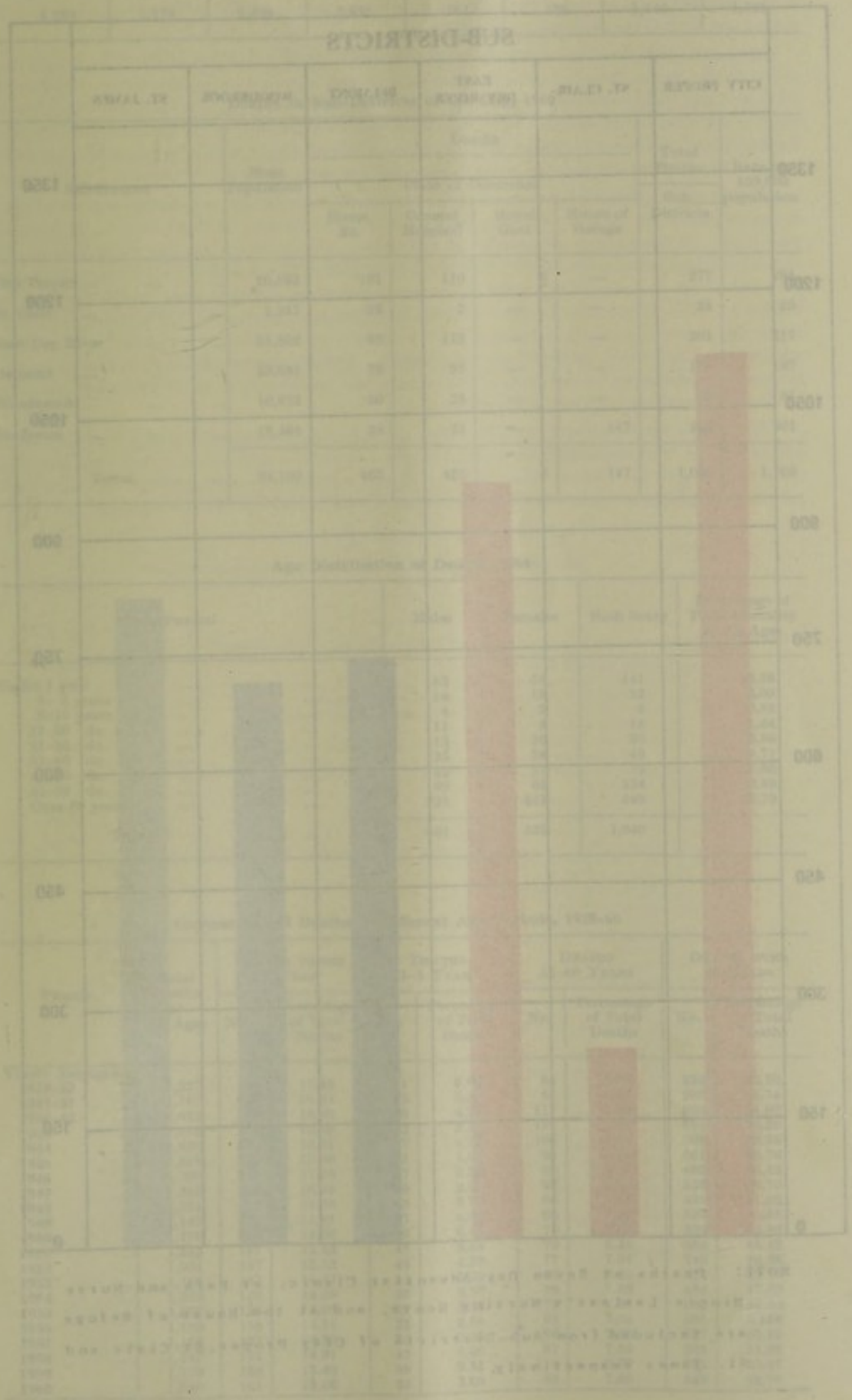
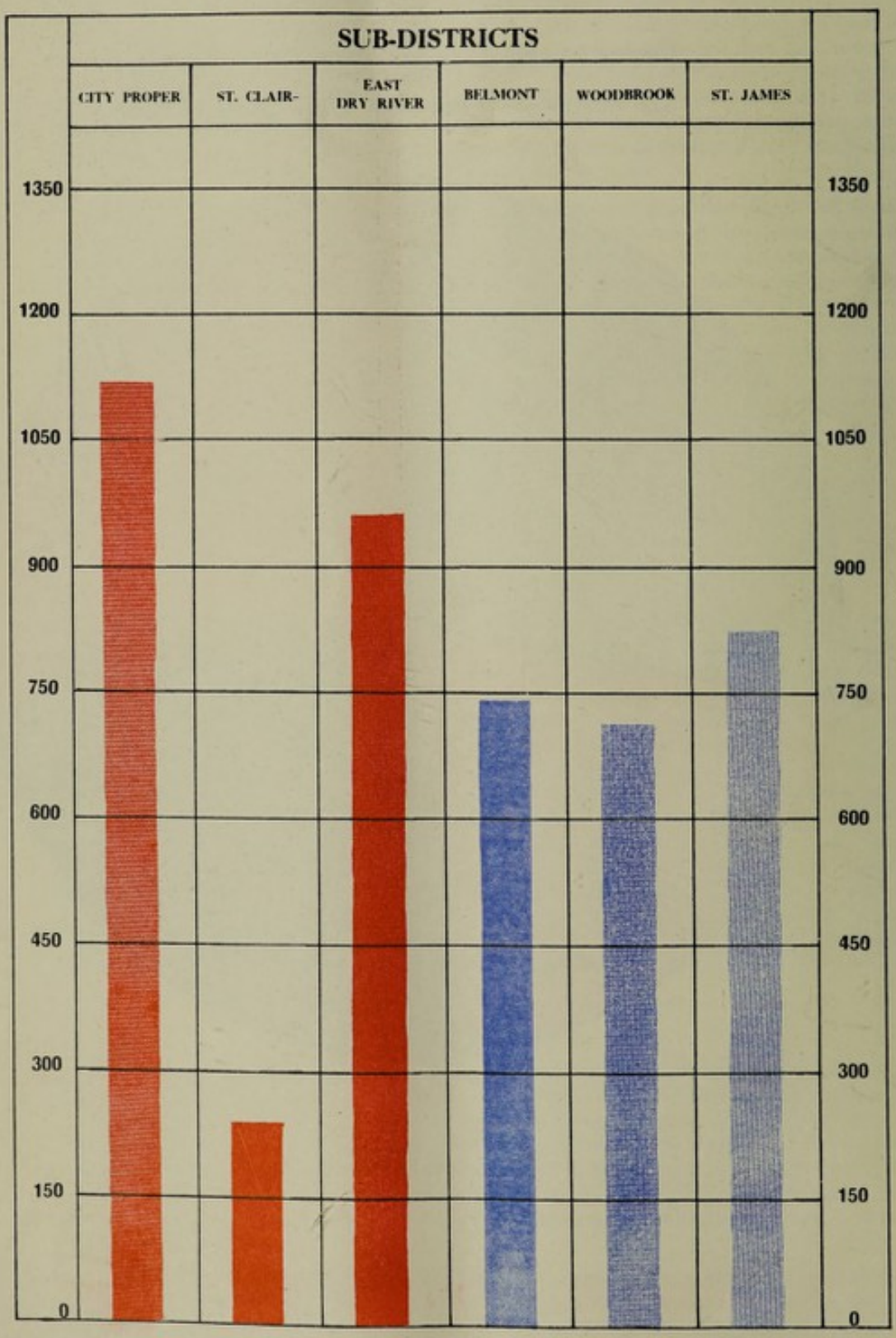


CHART D

Port-of-Spain

Sub-Districts Death Rate Per 100,000 Population of Sub-District—1960



NOTE: Deaths at Seven Day Adventist Clinic, at Park and Nurse Minnie Lawless's Nursing Homes, and at the House of Refuge are excluded from Sub-Districts of City Proper, St. Clair and St. James respectively.

Birth and Death Rate, 1960

Births, 1960				Deaths, 1960			
Males	Females	Both Sexes	Birth Rate per 100,000 population	Males	Females	Both Sexes	Death Rate per 100,000 population
1,220	1,278	2,498	2,655	501	539	1,040	1,105

Deaths in Sub-Districts of the City, 1960

Sub-District	Mean Population	Deaths — Place of Occurence				Total Deaths Sub-Districts	Rate per 100,000 population
		Home, &c.	General Hospital	Royal Gaol	House of Refuge		
City Proper	20,883	161	110	6	—	277	294
St. Clair	1,247	22	2	—	—	24	25
East Dry River	21,202	92	112	—	—	204	217
Belmont	23,631	79	97	—	—	176	187
Woodbrook	10,673	50	26	—	—	76	81
St. James	16,464	58	78	—	147	283	301
TOTAL	94,100	462	425	6	147	1,040	1,105

Age Distribution of Deaths, 1960

PERIOD	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	83	58	141	13.56
1– 5 years	14	18	32	3.08
6–10 years	4	2	6	0.58
11–20 do.	11	4	15	1.44
21–30 do.	15	20	35	3.36
31–40 do.	25	24	49	4.71
41–50 do.	42	37	79	7.60
51–60 do.	69	65	134	12.88
Over 60 years	238	311	549	52.79
TOTAL	501	539	1,040	

Comparison of Deaths at different Age Periods, 1928-60

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
1938-42 ...	1,622	275	16.85	68	4.21	117	7.20	566	34.92
1943 ...	1,862	283	15.20	102	5.18	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
1947 ...	1,385	231	16.68	49	3.54	92	6.64	536	38.70
1948 ...	1,191	177	14.86	45	3.78	66	5.54	491	41.23
1949 ...	1,147	171	14.91	57	4.97	85	7.41	524	45.68
1950 ...	1,170	168	14.36	75	6.41	76	6.50	526	44.96
1951 ...	1,243	167	13.43	43	3.46	79	6.35	602	48.43
1952 ...	1,094	137	12.52	48	4.39	77	7.04	540	49.36
1953 ...	1,108	157	14.17	41	3.70	67	6.05	524	47.29
1954 ...	1,028	150	14.59	36	3.50	79	7.69	484	47.08
1955 ...	1,067	138	12.93	27	2.53	78	7.31	542	50.80
1956 ...	1,120	158	14.11	32	2.86	85	7.59	581	5.188
1957 ...	1,134	127	11.20	35	3.09	86	7.58	627	55.29
1958 ...	1,147	171	14.91	42	3.66	87	7.58	595	51.88
1959 ...	1,179	158	13.40	39	3.31	114	9.67	595	50.47
1960 ...	1,040	141	13.56	32	3.08	82	7.88	549	52.79

Causes of Death

It is always a matter of great importance to statisticians, especially those who are concerned with insurance, to public health workers, and to the State, and also to lay people generally to have a clear picture in their mind's eyes of the causes of death and particularly of those diseases that are responsible for the greatest mortality, and this is doubly important where the locality concerned is an important sea-port and a centre of communication that is visited by numbers of people from abroad and by tourists in search of a holiday.

As I have already stated deaths of 1,040 residents of the City of Port-of-Spain were registered at the Public Health Department in the year under report and we have good reason to believe that all these 1,040 people who died in the City in 1960 were permanent inhabitants of the City. Every effort is made and every means at our disposal adopted to make sure, as far as that is possible, that the deaths of those persons who did not, during the whole of the six months previous to their death, reside in the City are not included in the figures that are compiled by us.

Diseases of the Circulatory System, i.e., cardiac and vascular diseases occupied pride of place in the mortality list for the year 1960, having claimed 260 victims, 38 fewer than in the previous year 1959. Of this number arteriosclerotic and degenerative heart disease was responsible for 154 victims and high blood pressure 47. This is the same picture that we have been painting year after year and we are now almost reconciled to the fact that each year cardiac and vascular diseases tops the list of causes of mortality in the Urban Sanitary District. Next comes the mortality of infants under one year of age, of whom 141 died in 1960 due to a variety of causes but mainly prematurity, asphyxia and atelectasis and diarrhoea and enteritis. Vascular disease affecting the central nervous system was responsible for the death of 132 persons, the greater proportion of whom fell victims to cerebral haemorrhage and cerebral thrombosis.

Diseases of the Respiratory System, under which heading are included deaths from pneumonia and bronchitis, were responsible for the next largest number of deaths 114, and then came diarrhoea and enteritis with 57 victims ; the number of deaths certified to senility, purely and simply, with no other complicating cause, was 37 and to kidney disease, acute and chronic nephritis, 21.

Causes of Deaths, 1958—(International Classification)

Intermediate List No.	Cause Groups	Detailed List No.	Total
	I—Infective and Parasitic Diseases		
A 1	Tuberculosis of respiratory system	001–008	2
A 2	Tuberculosis of meninges and central nervous system	010	—
A 3	Tuberculosis of intestines, peritoneum and mesenteric glands	011	—
A 4	Tuberculosis of bones and joints	012	—
A 5	Tuberculosis, other forms :		
	02 All other forms	014, 016–019	—
A 6	Congenital Syphilis	020	—
A 8	Tabes Dorsalis	024	—
A 9	General paralysis of insane	025	—
A 10	All other syphilis	026–029	12
A 11	02 Other gonococcal infections	031–035	—
A 12	Typhoid fever	040	1
A 13	02 Other Salmonella infections	042	—
A 16	Dysentery, all forms :		
	01 Bacillary dysentery	045	—
	02 Amoebiasis	046	—
	03 Other unspecified forms of dysentery	047, 048	1
A 20	Septicaemia and pyaemia	053	3
A 21	Diphtheria	055	1
A 22	Whooping cough	056	2
A 23	Meningococcal infections	057	—
A 25	Leprosy	060	—
A 26	Tetanus	061	7
A 29	Acute infectious Encephalitis	082	1
A 32	Measles	085	—
A 34	Infectious hepatitis	092	2
A 37	03 Falciparum malaria (malignant tertian)	112	—
A 41	Ankylostomiasis	129	1
A 42	02 Ascariasis	130.0	—
A 42	02 Ascariasis	130.0	—
A 43	All other diseases classified as infective and parasitic :		
	01 Lymphogranuloma venereum	037	—
	02 Granuloma inguinale, venereal	038	—
	08 Chicken pox	087	—
	22 Herpes zoster	088	—
	23 Mumps	089	—
	25 All other diseases classified as infective and parasitic	132–134	—
	II—Neoplasms		
A 44	Malignant neoplasm of buccal cavity and pharynx	140, 148	4
A 45	Malignant neoplasm of oesophagus	150	—
A 46	Malignant neoplasm of stomach	151	16
A 47	Malignant neoplasm of intestine, except rectum	152, 153	9
A 48	Malignant neoplasm of rectum	154	8
A 49	Malignant neoplasm of larynx	161	3

Causes of Deaths, 1960—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
A 50	Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	162, 163	2
A 51	Malignant neoplasm of breast	170	10
A 52	Malignant neoplasm of cervix uteri	171	15
A 53	Malignant neoplasm of other unspecified parts of uterus	172–174	7
A 54	Malignant neoplasm of prostate	177	5
A 55	Malignant neoplasm of skin	190–191	1
A 56	Malignant neoplasm of bone and connective tissue	196, 197	1
A 57	Malignant neoplasm of all other and unspecified sites	155–160 175, 176 198, 199	33
A 58	Leukaemia and Aleukaemia	204	3
A 59	Lymphosarcoma and other neoplasms of lymphatic system	200–203 205	5
A 60	Benign neoplasms and neoplasms of unspecified nature	210–239	1
	III—Allergic, Endocrine System, Metabolic, and Nutritional Diseases		
A 62	Thyrotoxicosis with or without goitre	252	—
A 63	Diabetes mellitus	260	25
A 64	Avitaminosis and other deficiency states:		
	01 Beri Beri	280	2
	02 Pellagra	281	1
	04 Vitamin B deficiency, except beri beri and pellagra	286.2	—
	05 Other deficiency states	283–286	11
	IV—Diseases of the Blood and Blood-Forming Organs		
A 65	Anaemias:		
	01 Pernicious and other hyperchromic anaemias	290	—
	03 Other specified and unspecified anaemias	292, 293	3
A 66	Allergic disorders, all other endocrine, metabolic and blood diseases:		
	01 Asthma	241	2
	02 All other allergic disorders, endocrine, metabolic and blood diseases	253	1
	V—Mental, Psychoneurotic and Personality Disorders		
A 67	Psychoses	300–309	—
A 68	Psychoneuroses and disorders of personality	310–324 326	—
	VI—Diseases of the Nervous System and Sensory Organs		
A 70	Vascular lesions affecting central nervous system	330–334	132
A 71	Nonmeningococcal meningitis	340	2
A 72	Multiple sclerosis	345	—
A 73	Epilepsy	353	2
A 77	02 Otitis media and mastoiditis	391–393	—
A 78	02 All other diseases of the nervous system and sense organs	341–344 350–352 354–357 360–369 395–398	6
	VII—Diseases of the Circulatory System		
A 79	Rheumatic fever	400–402	2
A 80	Chronic rheumatic heart disease	410–416	3
A 81	Arteriosclerotic and degenerative heart disease	420–422	154
A 82	Other diseases of the heart	430–434	48
A 83	Hypertension with heart disease	440–443	37
A 84	Hypertension without mention of heart	444–447	10
A 85	Diseases of arteries	450–456	5
A 86	Other diseases of the circulatory system	460–468	1
	VIII—Diseases of the Respiratory System		
A 87	Acute upper respiratory infections	470–475	—
A 88	Influenza	480–483	—
A 89	Lobar pneumonia	490	6
A 90	Broncho pneumonia	491	57
A 91	Primary atypical, other, and unspecified pneumonia	492, 493	30
A 92	Acute bronchitis	500	3
A 93	Bronchitis, chronic and unqualified	501, 502	5
A 95	Empyema and abscess of lung	518, 521	1
A 96	Pleurisy	519	4
A 97	All other respiratory diseases:	523	—
	01 Pneumoconiosis	511–517	8
	02 All other respiratory diseases	520–522 524–527	

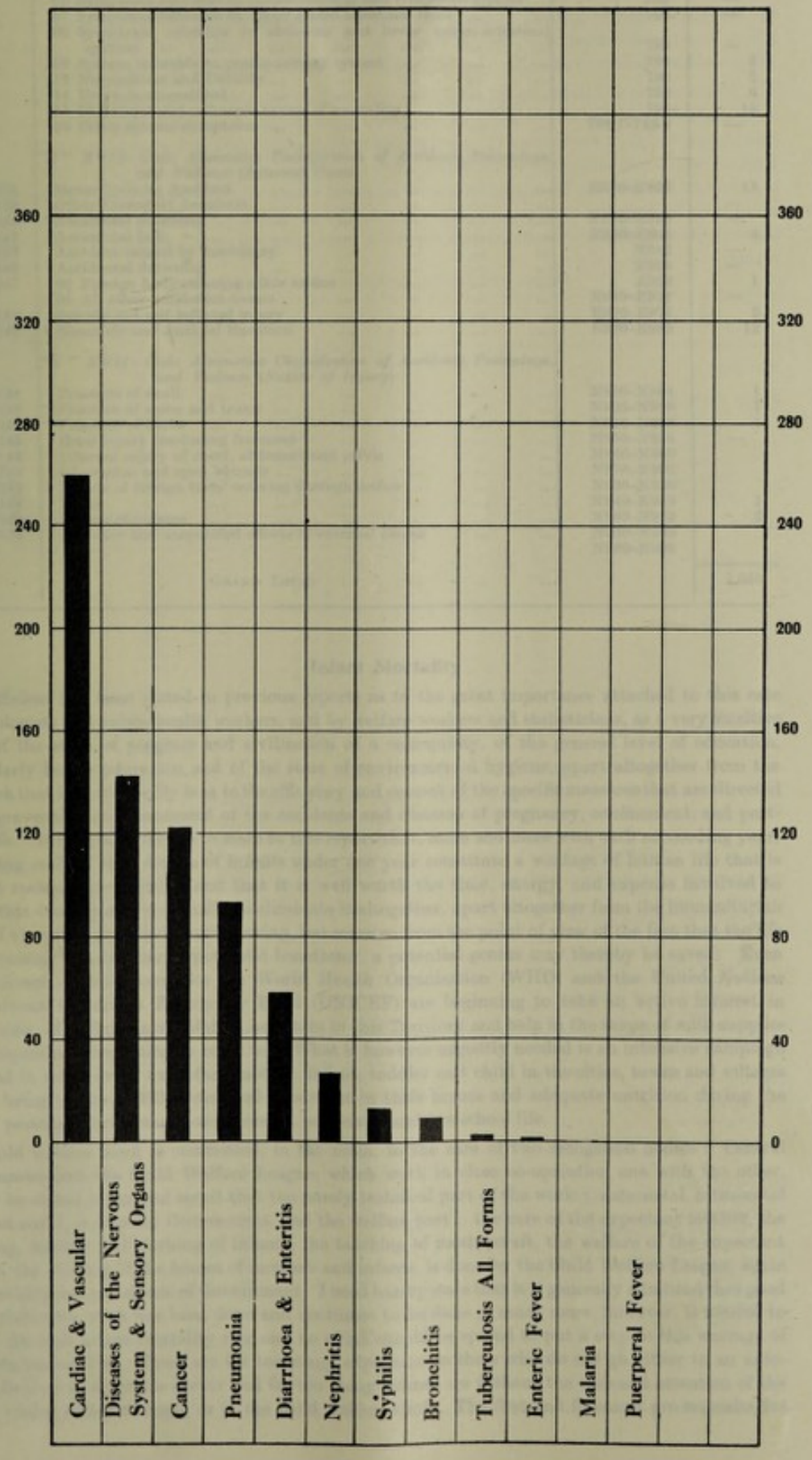
Causes of Deaths, 1960—(International Classification)—*Continued*

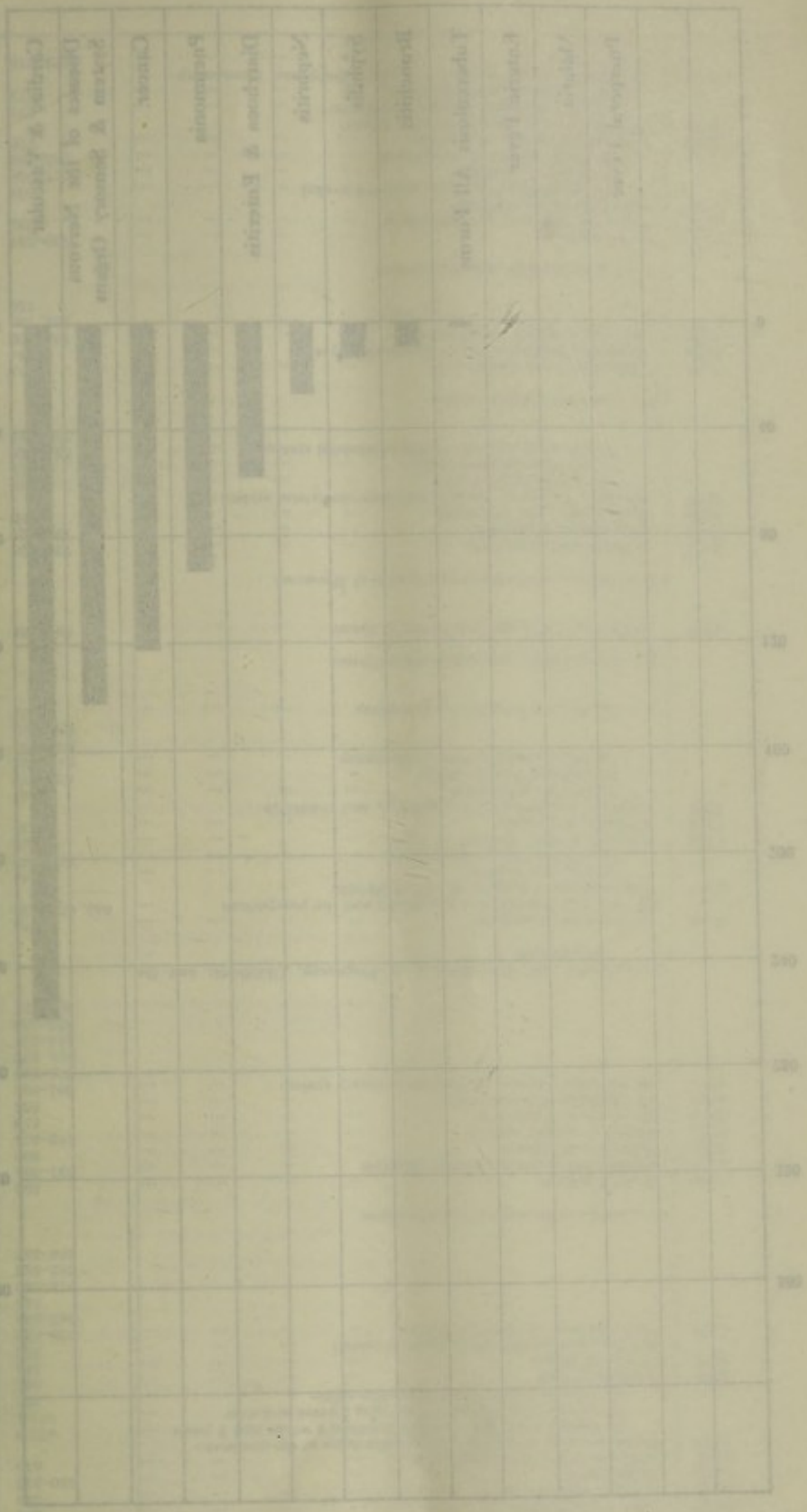
Intermediate List No.	Cause Groups	Detailed List No.	Total
	I—Diseases of the Digestive System		
A 99	Ulcer of stomach	540	4
A100	Ulcer of duodenum	541	—
A101	Gastritis and duodenitis	543	3
A102	Appendicitis	550–553	1
A103	Intestinal obstruction and hernia	570	7
A104	Gastro-enteritis and colitis, except diarrhoea of the newborn:		
	01 Gastro-enteritis and colitis between 4 weeks and 2 years	571.0	45
	02 Gastro-enteritis and colitis, ages 2 years and over	571.1	10
	03 Chronic enteritis and ulcerative colitis	572	—
A105	Cirrhosis of liver	581	14
A106	01 Cholelithiasis	584	2
	02 Cholecystitis without mention of calculi	585	1
A107	Other diseases of digestive system	536–539 542–544 545 573–580 582–583 586–587	10
	I—Diseases of the Genito-Urinary System		
A108	Acute Nephritis	590	—
A109	Chronic and other unspecified nephritis	591–594	21
A110	Infections of kidneys	600	5
A111	Calculi of urinary system	602–604	1
A112	Hyperplasia of prostate	610	4
A114	02 Disorders of menstruation	634	—
A114	03 All other diseases of the genito-urinary system	601–603 605–609 611, 612 614–617 622–623 635–637	11
	I—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium		
A116	01 Puerperal eclampsia	685	—
	02 All other toxaemias of pregnancy and the puerperium	642, 652, 686	2
A117	Haemorrhage of pregnancy and childbirth:		
	01 Placenta praevia	643	—
	02 Haemorrhage of pregnancy	644, 670	—
A118	Abortion without mention of sepsis	650	1
A119	Abortion with sepsis	651	4
A120	All other complications of pregnancy and childbirth:		
	01 Ectopic pregnancy	645	—
	03 Delivery complications	673–675	—
	04 Other complications of pregnancy	646, 648 649, 676 680, 683	—
	05 Delivery without complications	660	—
	II—Diseases of the skin and Cellular Tissues		
A121	Infections of skin and subcutaneous tissue	690–698	—
	III—Diseases of the Bones and Organs of Movement		
A122	Arthritis and spondylitis	720–725	2
A123	Rheumatism unspecified	726–727	—
A124	Osteomyelitis and Periostitis	730	—
A126	All other diseases of the skin and musculoskeletal system:		
	01 Chronic ulcer of skin	715	2
	02 All other diseases of skin	716	1
	03 All other diseases of musculoskeletal system	731–736 738, 744	1
	IV—Congenital Malformations		
A127	Spina bifida and meningocele	751	2
A128	Congenital malformation of Circulatory System	754	3
A129	All other congenital malformations	750–752 753, 755 759	3
	V—Certain Diseases of Early Infancy		
A130	Birth Injuries	760–761	4
A131	Post-natal asphyxia and atelectasis	762	17
A132	Infections of the newborn:		
	01 Diarrhoea of newborn (under 4 weeks)	764	2
	03 Sepsis of newborn	767, 768	—
	04 Other infections of newborn	763–766	2
A133	Haemolytic diseases of newborn	770	—
A134	All other defined diseases of early infancy:		
	02 Haemorrhagic diseases of newborn	771	4
	03 Nutritional maladjustment	772	2
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773, 776	38

CHART E

Port-of-Spain

Principal Individual
CAUSES OF DEATHS 1960





Causes of Deaths, 1960—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	XVI—Symptoms, Senility and Ill-defined Conditions		
A136	Senility without mention of psychosis	794	37
A137	01 Pyrexia of unknown origin	788.8	—
	03 Certain symptoms referable to nervous system and special senses	780	—
	04 Other symptoms referable to nervous system	781	—
	05 Symptoms referable to cardio-vascular and lymphatic system ...	782	—
	07 Symptoms referable to upper gastro-intestinal tract	784	—
	08 Symptoms referable to abdomen and lower gastro-intestinal system	785	—
	09 System referable to genito-urinary system	786	2
	12 Nervousness and Debility	790	2
	14 Uraemia unqualified	792	6
	15 Ill-defined and unknown causes of mortality	795	12
	16 Other general symptoms	788.1–788.9	—
	"E" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)		
AE138	Motor Vehicles Accident	E810–E825	11
AE139	Other Transport Accidents		—
AE140	Accidental poisoning	E870–E985	—
AE141	Accidental falls	E900–E904	4
AE142	Accident caused by machinery	E912	—
AE146	Accidental drowning	E929	—
AE147	02 Foreign body entering other orifice	E928	1
	05 All other accidental causes	E910–E911	—
AE148	Suicide and self-inflicted injury	E970–E979	3
AE149	Homicide and Judicial Exeution	E980–E985	12
	"N" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (Nature of Injury)		
AN138	Fracture of skull	N800–N804	1
AN139	Fracture of spine and trunk	N805–N809	1
AN140	Fracture of limbs	N810–N829	1
AN143	Head injury (excluding fracture)	N850–N856	—
AN144	Internal injury of chest, abdomen and pelvis	N860–N869	
AN145	Laceration and open wounds	N870–N908	
AN147	Effects of foreign body entering through orifice	N930–N939	
AN148	Burns	N940–N949	1
AN149	Effects of poisons	N960–N979	2
AN150	All other and unspecified effects of external causes	N950–N959 N980–N999	
	Grand Total		1,040

Infant Mortality

Sufficient has been stated in previous reports as to the great importance attached to this rate by sociologists and public health workers, and by welfare workers and statisticians, as a very sensitive index of the state of progress and civilization of a community, of the general level of education, particularly health education and of the state of environmental hygiene, apart altogether from the yardstick that it undoubtedly is as to the efficiency and success of the specific measures that are directed to the prevention and treatment of the accidents and diseases of pregnancy, confinement, and post-natal life. It is enough for me to state in this report that, more and more with each succeeding year, it is being realised that deaths of infants under one year constitute a wastage of human life that is in large measure preventable and that it is well worth the time, energy, and expense involved to reduce this wastage and eventually to eliminate it altogether, apart altogether from the humanitarian point of view that any life is worth saving, but more so from the point of view of the fact that the life of a potential breadwinner, a potential benefactor, a potential genius may thereby be saved. Even international organisations like the World Health Organisation (WHO) and the United Nations International Children's Emergency Fund (UNICEF) are beginning to take an active interest in the deaths of infants and children as obtain in this Territory and help in the shape of milk supplies and equipment is beginning to reach us. What is however urgently needed is an intensive campaign designed to reach every expectant mother, infant, toddler and child in the cities, towns and villages and to bring to them skilled care and treatment in their homes and adequate nutrition during the critical periods of pregnancy, confinement, post-natal and pre-school life.

Child welfare work is committed, in the main, to the care of two recognised bodies : Central Government and the Child Welfare League, which work in close co-operation one with the other. It may be stated in general terms that the purely technical part of the work : ante-natal, intra-natal and post-natal, is done by Government, and the welfare part : the care of the expectant mother, the weighing, feeding and clothing of infants, the teaching of mothercraft, the welfare of the expectant mother, the visiting of the homes of mothers and infants, is done by the Child Welfare League, again with the help and assistance of Government. I need hardly state that it is generally admitted that good and satisfactory work has been done and continues to be done ; much more, however, is needed to reduce the high infant mortality rate and no effort should be spared to put a stop to this wastage of valuable human life. There are far too many expectant mothers who do not go either to an ante-natal clinic or to a private doctor and far too many infants are without the care and attention of the health visitor either at home or in the child welfare clinic. The first and foremost pre-requisite for

the further prosecution of this work is an increase in the number of health visitors who are the pivots around which the whole scheme revolves and of whom there should at all times be a sufficient number to enable every home where an expectant mother or newly born infant resides to be visited at regular intervals. If the mother and infant will not go to the clinic, the clinic must be brought to the home and it would appear that the results of care and welfare administered and attention and advice given in the home itself, taking into account the circumstances of the home, are of more lasting practical benefit than that administered and given in the ideal conditions of the clinic which can hardly ever be duplicated in the home. Besides home visiting has been known to have a highly beneficial effect on the environmental hygiene of the home and surroundings which, we have already stated, has a direct bearing on infant mortality and may be the means whereby the general sanitation of the neighbourhood is improved and more adequate housing accommodation for mother and child provided.

The number of infants under one year who died in the year under report totalled 141 which, with the 2,498 live births recorded for the year, gives an infant mortality figure of 51.44 per 1,000 live births, which is lower than the corresponding figures for 1959, 158 deaths and 2,627 live births with an infant mortality rate of 60.53 per 1,000 live births. This is indeed and in fact a high figure and though the rate has been getting lower and lower with each succeeding year, it is much too high a figure to be complacent about ; much lower figures are being recorded in other tropical and sub-tropical cities of similar size and especially in the more progressive and advanced cities in temperate climes.

Births and Deaths of Infants under 1 year, 1957-60

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
1938–42	2,913	275	93.84
1943–47	4,026	248	61.94
Average 1918–47	2,446	259	116.94
1948	4,053	177	43.67
1949	4,037	171	42.36
1950	3,905	168	43.02
1951	3,982	167	41.94
1952	4,115	137	33.29
1953	4,499	157	34.90
1954	5,403	150	27.76
1955	3,078	138	44.83
1956	2,621	158	60.28
1957	2,735	127	46.44
1958	2,592	171	65.97
1959	2,627	158	60.15
1960	2,498	141	56.44

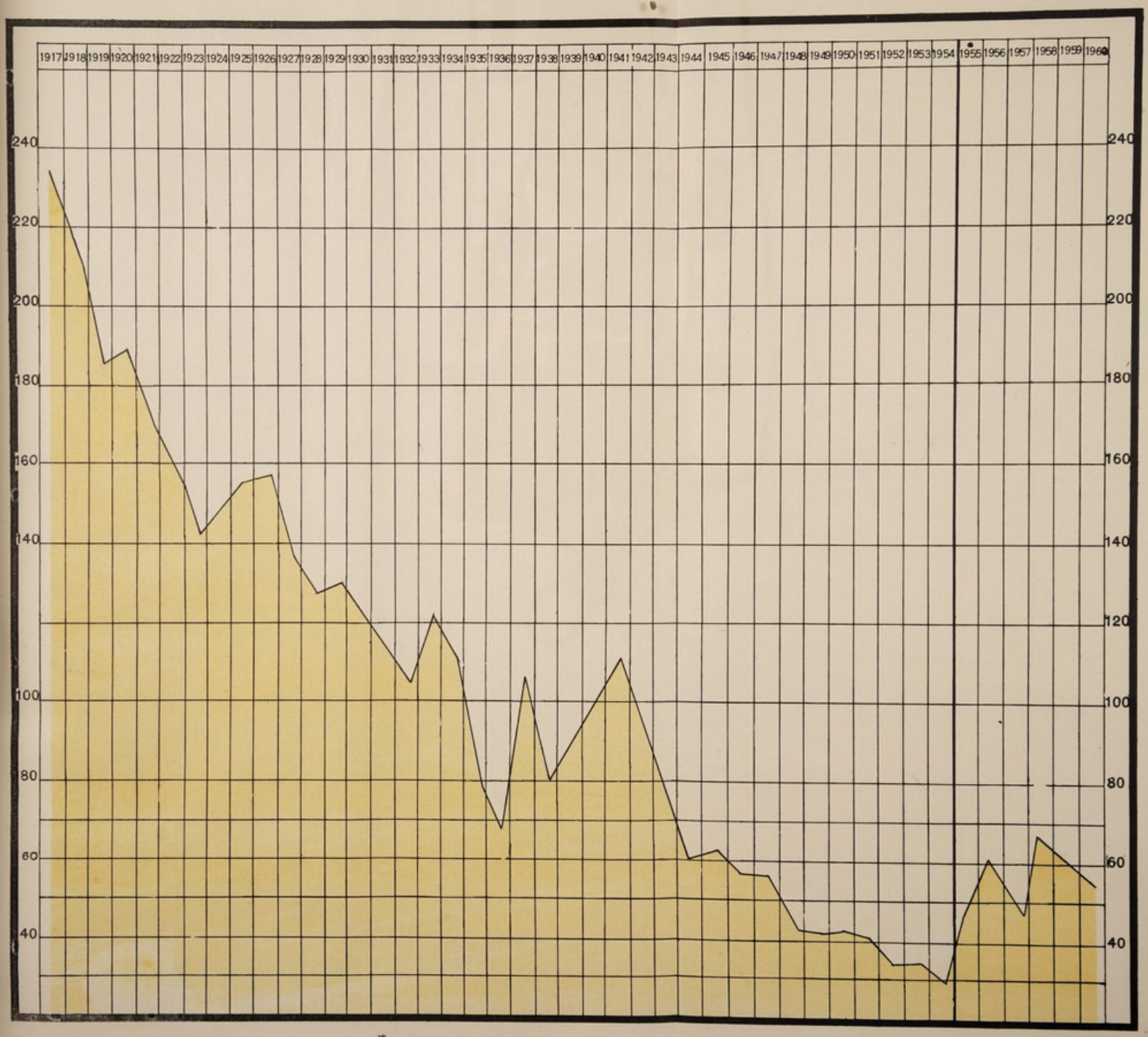
Causes of Deaths, under 1 year, 1960

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 :				
Ventricular Septal Defect	—	—	—	
Prematurity	35	3	38	
Marasmus	—	—	—	
Malnutrition	1	1	2	
Congenital Abnormalities	—	—	—	
Congenital Heart Disease	1	2	3	
Hydrocephalus	—	2	2	
Neonatal Sepsis	—	—	—	
Cerebral Damage	—	—	—	
Total Ante-Natal	37	8	45	31.91
Intra Natal Causes :				
Haemorrhage	3	—	3	
Total Intra-Natal	3	—	3	2.13
Post-Natal Causes :				
Asphyxia and Atelectasis	17	—	17	
Pneumonia	4	14	18	
Diarrhoea and Enteritis	6	32	38	
Bronchitis	1	2	3	
Icterus Neonatorum	—	—	—	
Pleurisy	—	—	—	
Tuberculosis	—	—	—	
Pulmonary Congestion	1	—	1	
Other Post-Natal Causes	11	5	16	
Total Post-Natal	40	53	93	65.96
Grand Total	80	61	141	

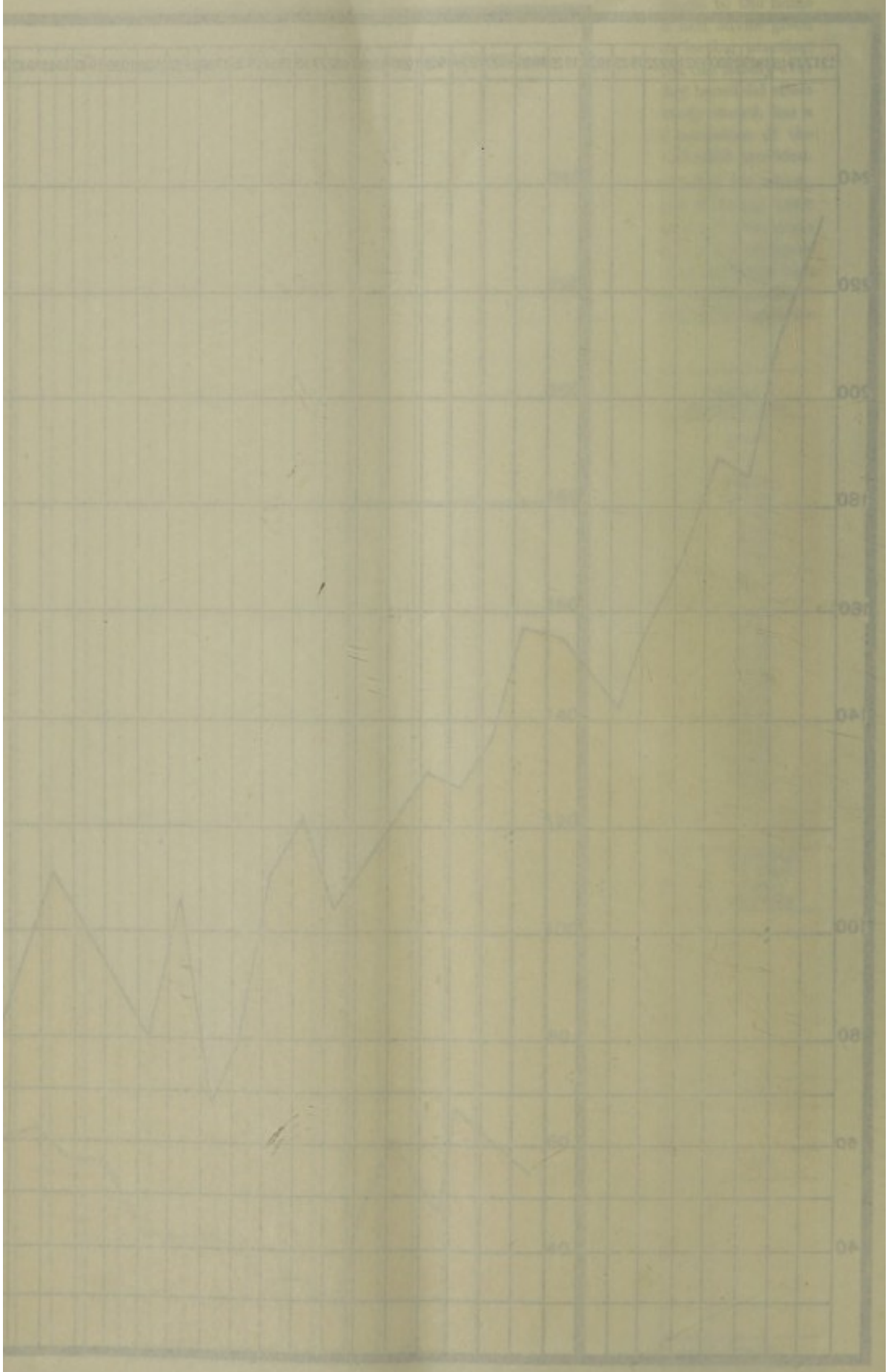
CHART F

Port-of-Spain

Infant Mortality Rates per 1,000 Live Births 1917-1960



* Adjusted Rate (1955): Births and Deaths of City Residents only



Duration of Life of Infants dying under 1 year of Age, 1960

Duration of Life	No. of Infants	Percentage of Total Deaths under 1 year	Corresponding Percentage, 1959
Under 1 day	21	14.90	10.76
1 day and under 2 weeks	49	34.75	40.51
2 weeks and under 1 month	10	7.09	7.60
TOTAL UNDER 1 MONTH	80	56.74	58.87
1 month to 3 months	22	15.60	20.25
Over 3 to 5 months	10	7.09	4.43
Over 5 to 7 months	10	7.09	9.49
Over 7 to 9 months	9	6.39	4.43
Over 9 to 11 months	10	7.09	2.53
Over 11 months and under 1 year	—	—	—
TOTAL	141	—	—

Neo-Natal Mortality (Deaths under 1 month) 1930-1960

Period	No. of Deaths under 1 month	Percentage of Total Deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Birth
Yearly Average 1930–34	90.6	38.60	44.03
Year 1935	91	50.28	39.24
1936	61	40.94	26.58
1937	110	46.41	48.39
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
1947	133	57.58	32.20
1948	76	42.94	18.75
1949	82	47.96	20.31
1950	82	48.82	21.00
1951	77	46.11	19.34
1952	60	43.79	14.58
1953	84	53.51	18.67
1954	84	56.00	15.55
1955	82	59.42	26.64
1956	67	42.41	25.56
1957	70	55.12	25.59
1958	88	51.46	33.95
1959	93	58.87	35.40
1960	80	56.74	32.02

Still Births

It is a matter of importance that some attention be paid to the number of still births that occur in any community, seeing that death in the mother's womb is intimately bound up with deaths that occur during the first year of extra uterine life and particularly those that take place during the first month of the first year.

It is not uncommon to find that the selfsame causes that operate to the detriment of the infant in the mother's womb and cause its intra-uterine death are responsible for the weakened or injured infant that cannot live more than a month after birth. It is a question of the intensity of the lethal agent and the degree of resistance of the infant. Any disease or injury of great intensity acting on an infant of low resistance would have an immediate lethal effect, whereas a disease or an injury of less intensity acting on an infant with a greater degree of resistance would permit the infant to be born alive but so weakened as to be incapable of surviving beyond the first year of extra-uterine life or even beyond the first month of the first year.

Certain still births are, of course, caused by artificial means and come under the heading of criminal abortion, but we are not at the moment concerned with these.

The conditions that cause the death of the infant in the mother's womb may operate during the ante-natal period as well as during the intra-natal period ; of these the chronic systemic diseases like tuberculosis, chronic nephritis, diabetes, chronic heart disease and alcoholism are the more important and operate predominantly during the ante-natal period on the one hand ; and the diseases, accidents and abnormalities of pregnancy play the predominant role in the intra-natal period on the other hand. It follows therefore that further efforts to diminish the still birth rate must be concentrated on the elimination and cure of these chronic systemic diseases during the ante-natal period

and on prompt, skilled and readily available intra-natal care during the intra-natal period. In addition to the cure of disease and the avoidance of injury and accident, health education can play an important part and parents must be made to understand and realise that diseases like alcoholism, insanity, tuberculosis and diabetes can have a profound effect on the health and resistance of the infant that they may be responsible for.

During the year under report 73 still births were registered in the returns that reached the Department, which gives a still birth rate of 29.22 per 1,000 live births.

The number of still births registered during the past six years has been small, 89, 67, 78, 66, 57, 73, as compared with the corresponding figures for the previous six years : 244, 165, 193, 207, 225, 268.

Still Births, 1938-1960

Year	Total Still Births	Rate per 1,000 Live Births
1960	73	29.22
1959	57	21.70
1958	66	25.46
1957	78	28.52
1956	67	25.56
1955	89	28.92
1954	268	49.60
1953	225	50.01
1952	207	50.30
1951	193	48.47
1950	165	42.25
1949	244	60.44
1948	223	55 02
1947	220	53.49
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

Maternal Mortality

Maternal mortality is an index of the quality and extent of medical care and attention that are made available during the ante-natal and post-natal period, and of the quality and promptness of midwifery services during the period of labour and confinement. Where expectant mothers are brought early in the ante-natal period under competent medical care and attention the diseases and accidents of pregnancy can usually be avoided and where skilled and prompt midwifery services are available the complications and accidents of labour and confinement are either eliminated altogether or dealt with promptly. The death of an expectant mother during pregnancy, labour or confinement is a tragedy that should be and often could be avoided, and child bearing should be completely free from hazards of any kind and should remain the physiological process that it is meant to be. It is the duty of medical science to prevent disease and save the life of every single member of the community and a child and mother saved might very well be the means whereby greater benefit, greater welfare, and greater happiness are made to accrue to the community.

During the year under report 7 mothers died in pregnancy and during childbirth, and this figure with 2,498 live births gives a maternal mortality rate of 2.8 per 1,000 live births as compared with the death of 8 expectant mothers and a maternal mortality of 3.04 per 1,000 live births in 1959.

Causes of Maternal Deaths, 1960

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births	
						1960	Average 1955–1959
Puerperal Sepsis	—	—	—	—	—	—	—
Eclampsia	—	—	—	—	—	—	0.4
Haemorrhage	—	—	—	—	—	—	1.8
Pernicious Vomiting	—	—	—	—	—	—	0.2
*Other Causes	—	2	3	2	7	2.8	7.4
TOTAL	—	2	3	2	7	2.8	9.8

*Other Causes include Abortion with Sepsis 4, Abortion without mention of Sepsis 1, All other Toxaemias of Pregnancy and the Puerperium 2.

The Pre-School Child

The child between the ages of 1 and 5 is by comparison with the infant under 1 year completely neglected and lacks by far the care and attention that is devoted to the latter. It seems to be taken for granted that as soon as the first year of life is passed the child has taken on a new lease of life and can be permitted to fend for itself without guidance or supervision. That this is a gross error is being more and more recognized seeing that when next the child comes under medical supervision, i.e. when it enters school at the age of 5, it is the rule rather than the exception to discover a number of defects and diseases that could easily with medical care and attention have been prevented and which in some cases have done so much damage that the child is handicapped for life. It is true that the mortality of children between 1 and 5 is very much less than the mortality of infants under 1 year and that the under 1 year period in a child's life is much more vulnerable than any other period of the child's life, but there can be no room for the complacency and the *laissez-faire* attitude that prevails. Child welfare organisation must be such that the child between 1 and 5 years is brought under skilled medical care and attention at regular intervals during this period to enable the necessary preventive and curative measures to be applied at the earliest possible opportunity to the diseases and accidents that occur at this period of life. There is here an urgent need for more health visitors and voluntary workers whose duty it would be to visit the homes of these children and provide them with the care, attention and advice that they need to prevent them from falling a prey to diseases and injuries that can have such a crippling effect on their future lives.

In the difficult and complex conditions that obtain in modern life it seems inevitable that mothers be forced to go out to work to help run the home, a circumstance that must lead to more adequate accommodation for infants and children in creches and day nurseries and it is therefore incumbent upon the Nursing Association and the Child Welfare League, whose functions include the provision of nurseries and nursery schools, to take care of a need that is likely to grow greater with each passing year and to get the necessary financial support to extend their work in this particular and important direction.

During the year under report the deaths of 32 children between 1 and 5 were registered at the Public Health Department. Of these gastrotnteritis was responsible for the largest number of deaths 10, with pneumonia in the second place with 8 deaths.

Causes of Death at Ages 1 to 5, 1960

Groups	Group Total	Percentage of Total Mortality at Ages 1–5
Diseases, &c., attributable to Ante-Natal Causes	—	—
Communicable Diseases: Pneumonia 8; Diphtheria 1	9	28.12
Diseases of the Nervous System: Meningitis 1; Encephalo Myelitis 1; Status Epilepticus 1 ...	3	9.38
Diseases of the Circulatory System: Toxic Myocarditis 1	1	3.12
Diseases of the Respiratory System: Bronchitis 1	1	3.12
Diseases of the Digestive System: Gastro-Enteritis 10; Prolapse of Rectum 1	11	34.38
Other Causes: Malnutrition 1; Road Accident 1; Neoplasm of Ear 1; Neuroclastoma 1; Whooping Cough 1; Asthma Bronchiolitis 1; Sickle Cell Anaemia 1	7	21.88
	*32	

* M—14; F—18.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

The list of infectious diseases which have been declared notifiable and to which section 103 of Part XIV of the Public Health Ordinance, Ch. 12. No. 4 applies, remained the same in the year under report, i.e. 21, the last addition to the list, malaria, having been made in March, 1956. Of these 21 diseases, 7 have been designated dangerous infectious diseases because of the severity of the disease process itself, because of the large scale epidemics they can give rise to and have been known to give rise to in the past, and especially because their occurrence in any particular locality brings immediately into force quarantine measures that have been decided upon by international agreement. They are plague, cholera, yellow fever, smallpox (including alastrim), typhus fever, typhoid fever and anthrax. Typhoid fever and anthrax were proclaimed dangerous infectious diseases in 1937 and 1938 respectively (*Royal Gazette*, 30th July, 1937 and 2nd June, 1938). An outbreak of dangerous

infectious disease is a cause of great alarm and concern to countries immediately adjoining, as well as to countries further away and any such case has to be notified forthwith to the Pan American Sanitary Bureau, which is now the regional representative of the World Health Organisation and which was established before the World Health Organisation came into being for the specific purpose of safeguarding the health of the Americas. The imposition of quarantine restrictions on any country is a matter of serious import inasmuch as trade and commerce are materially affected apart altogether from the stigma attaching to the label " dangerous infectious disease ". Port-of-Spain and its environs were placed in this unfortunate position in 1954 when a few cases of jungle yellow fever occurred in the forest areas of the Arima and the Nariva-Mayaro Districts. These were followed in August of the same year 1954 by what had to be considered a case of urban yellow fever in the periphery of the City. Even though this label had been removed in a period of three months and quarantine restrictions lifted, the loss to the Territory was estimated to be in the vicinity of a million and a half dollars.

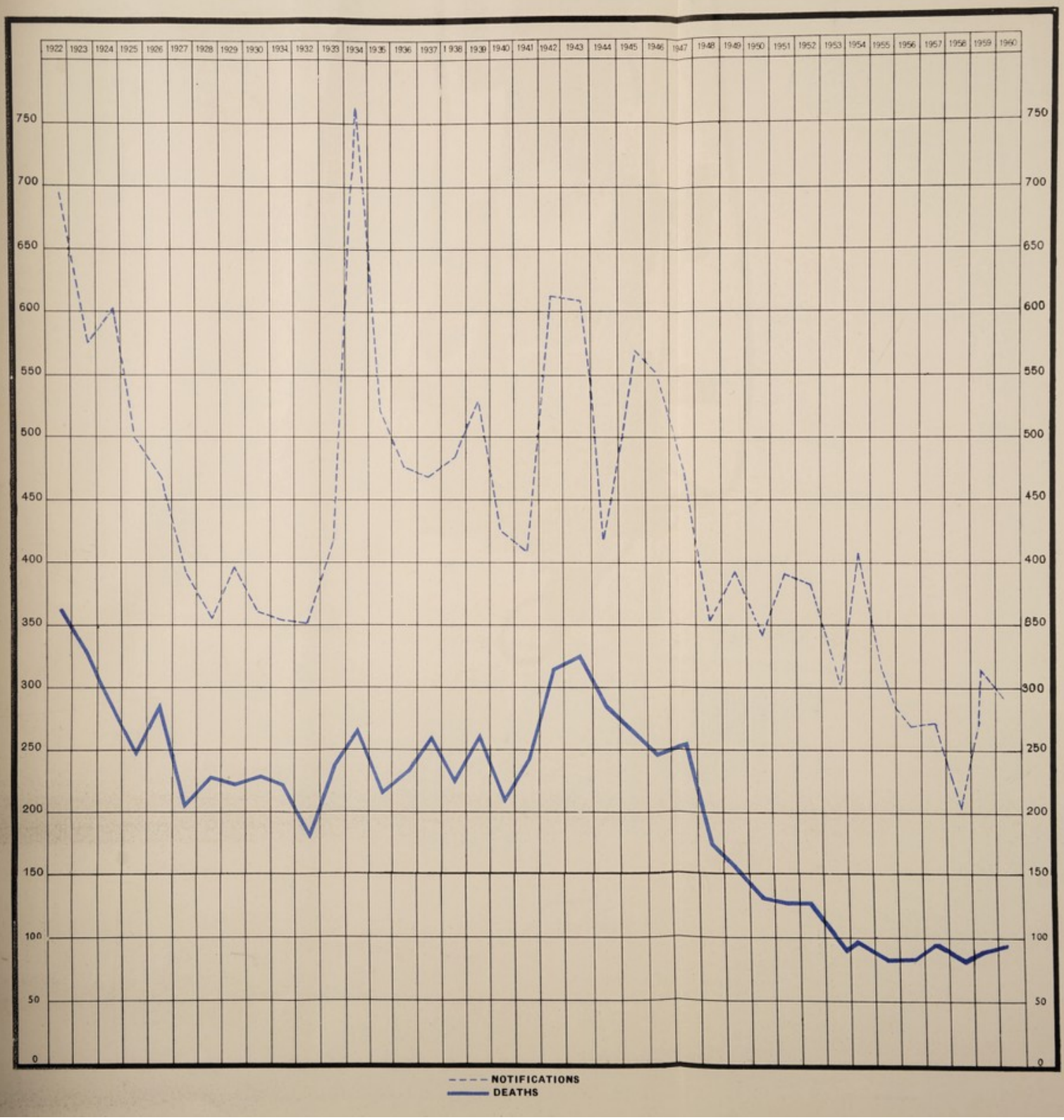
Section 104 of the Public Health Ordinance prescribes that it is a statutory duty to notify cases of infectious diseases that are declared notifiable to the Medical Officer of Health and this is a duty that is imposed, in the main, on the medical practitioner who is attending the case or who first saw the case in the course of his practice, and it states also that the case must be notified as soon as there is reasonable suspicion of the disease; in other words there must be no delay whatsoever in notifying the case even though confirmation of the disease is being sought by laboratory investigation or by further observation in Hospital. It is also the duty of the doctor in Hospital to whose care the case is committed to notify the disease to the Medical Officer of Health. A good deal of unnecessary delay often occurs when these notifications are transmitted by post to the Public Health Department and practitioners are requested to get in touch with the Department by telephone or to send the notification by hand to the Department. It is only by notification at the earliest possible opportunity to the public health authorities that such a case can be promptly and efficiently isolated and the whole chain of measures designed to limit the spread of the disease : isolation, disinfection and disinfestation, the detection of contacts, inoculation or immunisation, set in motion. Practitioners are also requested not to hesitate to refer cases to hospital where proper isolation can be effected, whenever it is obvious that the home conditions militate against effective isolation and this is particularly important in the overcrowded, congested and poorly sanitated homes in the East Dry River and Belmont Sub-districts and in certain other parts of the City where suitable conditions for the rapid spread of infectious disease are readily available.

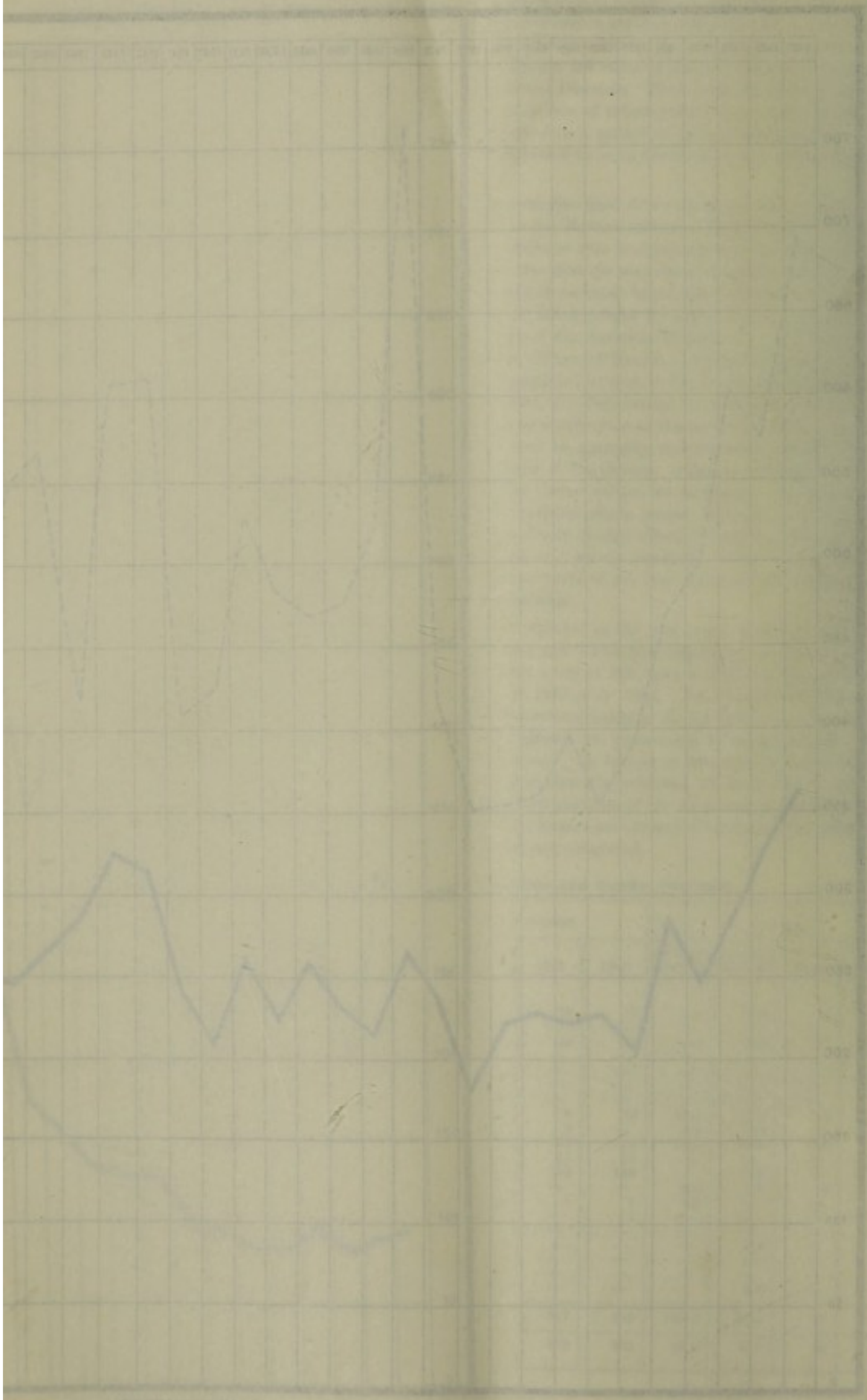
289 cases of notifiable infectious diseases were reported in the year under review as against 317 in the previous year 1959. The outbreak of chicken pox which was responsible for the notification of 159 cases in 1959 continued its depredations with a toll of 136 cases in 1960 but the disease was mild in type and no deaths were recorded either in 1959 or in 1960. For the rest the figures were practically the same as in 1959, pulmonary tuberculosis causing 73 notifications as against 70, diphtheria 19 as against 26, typhoid fever 21 as against 18, pneumonia 23 as against 30. Again pneumonia showed that it is a " poorly notified disease " by having as many as 93 deaths certified to it in 1960 as against 70 in 1959. As can always be confidently predicted, all the notifiable infectious diseases showed a greater incidence in the unsewered sections of the City and particularly in the East Dry River and Belmont Sub-districts where the houses are old and dilapidated, the inhabitants poor and undernourished, and the area overcrowded and congested.

Infectious Diseases—Notifications and Deaths, 1950-1960

Infectious Diseases	Cases Notified				Deaths			
	Average 1950–54	Average 1955–59	1959	1960	Average 1950–54	Average 1955–59	1959	1960
Diphtheria	28.8	19.2	26	19	1.4	1.2	2	1
Membranous Croup	0.2	—	—	—	—	—	—	—
Typhoid or Enteric Fever	25.8	14.4	18	21	4.4	0.6	—	1
Plague	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Small Pox (Alastrim)	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	135.2	84.6	70	73	30.4	11.0	6	2
Tuberculosis (other forms)	4.6	2.0	2	—	8.6	1.8	—	—
Pneumonia	61.4	31.2	30	23	63.2	68.8	70	93
Ophthalmia Neonatorum	5.8	12.6	11	15	—	—	—	—
Chicken Pox	93.8	105.6	159	136	—	0.2	—	—
Encephalitis Lethargica	0.4	0.2	—	—	0.2	0.6	3	1
Acute Poliomyelitis	7.6	4.2	1	1	0.2	—	—	—
Cerebro-Spinal Fever	0.4	0.2	—	1	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—
Puerperal Fever	—	0.2	—	—	—	0.8	—	—
Acute Ascending Myelitis	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—
Malaria	—	0.4	—	—	—	0.2	—	—
Grand Total	364	274.8	317	289	108.4	85.2	81	98
Rate per 100,000 Population	333.3	237.7	319	307	99.3	73.7	82	104

CHART G
Port-of-Spain
Infectious Diseases—Notifications and Deaths 1922-1960





Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1960

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	—	—	1	—	8	—	6	—	1	—	3	1
Membranous Croup	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid or Enteric Fever	2	—	—	—	14	1	1	—	—	—	4	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox (Alastrim)	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis	23	—	—	—	14	—	17	1	8	—	11	1
Tuberculosis (other forms)	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia (all forms)	2	15	—	1	10	15	7	15	1	3	3	44
Ophthalmia Neonatorum	5	—	—	—	7	—	1	—	—	—	2	—
Chicken Pox	19	—	3	—	69	—	30	—	7	—	8	—
Encephalitis Lethargica	—	—	—	—	—	1	—	—	—	—	—	—
Acute Poliomyelitis	1	—	—	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	—	—	—	—	—	—	—	—	1	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ascending Myelitis	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total	52	15	4	1	122	17	62	16	18	3	31	46
Rate per 100,000 Population in each Sub-District	249	72	321	80	575	80	262	68	169	28	188	279

Notifiable Infectious Diseases—Home and Hospital Deaths, 1960

Diseases	Deaths			Hospital Deaths Percentage of Total Deaths	Corresponding Percentage for the year 1959
	At Home	At Hospital	Total		
Diphtheria	—	1	1	100.00	50.00
Enteric Fever	—	1	1	100.00	—
Pulmonary Tuberculosis	1	1	2	50.00	33.33
Tuberculosis (other forms)	—	—	—	—	—
Pneumonia (all forms)	64	29	93	31.18	38.57
Puerperal Fever	—	—	—	—	—
Chicken Pox	—	—	—	—	—
Cerebro-Spinal Fever	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—
Encephalitis Lethargica	—	1	1	100.00	66.66
Malaria	—	—	—	—	—
Total	65	33	98	33.67	39.51

Premises, &c., Disinfected for Infectious Diseases and Vermin, 1960

Diseases	Premises sprayed
Pneumonia	18
Tuberculosis	56
Enteric Fever	19
Diphtheria	15
Puerperal Fever	—
Ophthalmia Neonatorum	12
Chicken Pox	97
Poliomyelitis	1
Cerebro-Spinal Fever	1
Leprosy	2
Encephalitis Lethargica	—
Total	221
Vermin	941

7,000 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.

TUBERCULOSIS

Pulmonary Tuberculosis

Pulmonary Tuberculosis was at one time a major public health problem in the City of Port-of-Spain and when I took office in the year 1937 it was the infectious disease that had the greatest incidence and was responsible for the highest mortality besides being at that time third in the list of all diseases responsible for the total mortality in the Urban Sanitary District. The victims of the disease at that time were doomed to despair and suffering and the number of cases that survived the two-year period subsequent to the diagnosis of the disease could be counted on the fingers of both hands. The victims of the disease were scorned and spurned, they were often deserted by their relatives and friends, and admission to hospital was looked upon as the final act in a drama of sorrow, distress, and suffering. There was as yet no sanatorium to which cases could be sent for rest and treatment, no proper isolation hospital to which advanced cases, whose chances of cure were remote, could be admitted to prevent the indiscriminate spread of the disease; the surgical treatment of tuberculosis was just being developed and the drugs that were in use at the time were those that relieved symptoms only and not those, such as are now available, that have a direct effect on the causative organism. In circumstances such as those it was inevitable that the uppermost thought in the mind of the patient, his relatives, and his friends was that he should conceal himself and cases of tuberculosis were driven underground with all the harm to the patient and the danger to contacts that such a procedure entails. The public conscience, however, was becoming aroused and the work of the Tuberculosis Association, on whose shoulders the main bulk of the measures directed to the prevention and treatment of tuberculosis fell at the time, had prepared the ground so well that with the help of a publicity campaign organised by one daily newspaper, the *Trinidad Guardian*, at the time, a sum of money was collected by means of public subscription which formed the nucleus for the building of the modern sanatorium at Caura, and which opened its doors to patients in 1949.

The Tuberculosis Division of the Health Department of Government established in 1946, and the Masson Isolation Hospital opened in 1948, were slowly and surely taking over the bulk of the work that the Tuberculosis Association had been doing since 1905, and with the division of responsibility for the prevention and treatment of tuberculosis between the Tuberculosis Association and the Tuberculosis Division of the Health Department of Government a new orientation was given to the problem of tuberculosis with results that are obvious to anyone who is interested.

It is true to state that today tuberculosis no longer presents a major public health problem and that the number of cases of pulmonary tuberculosis notified to the Public Health Department continues to show a downward trend and the number of deaths recorded gets fewer and fewer with each succeeding year.

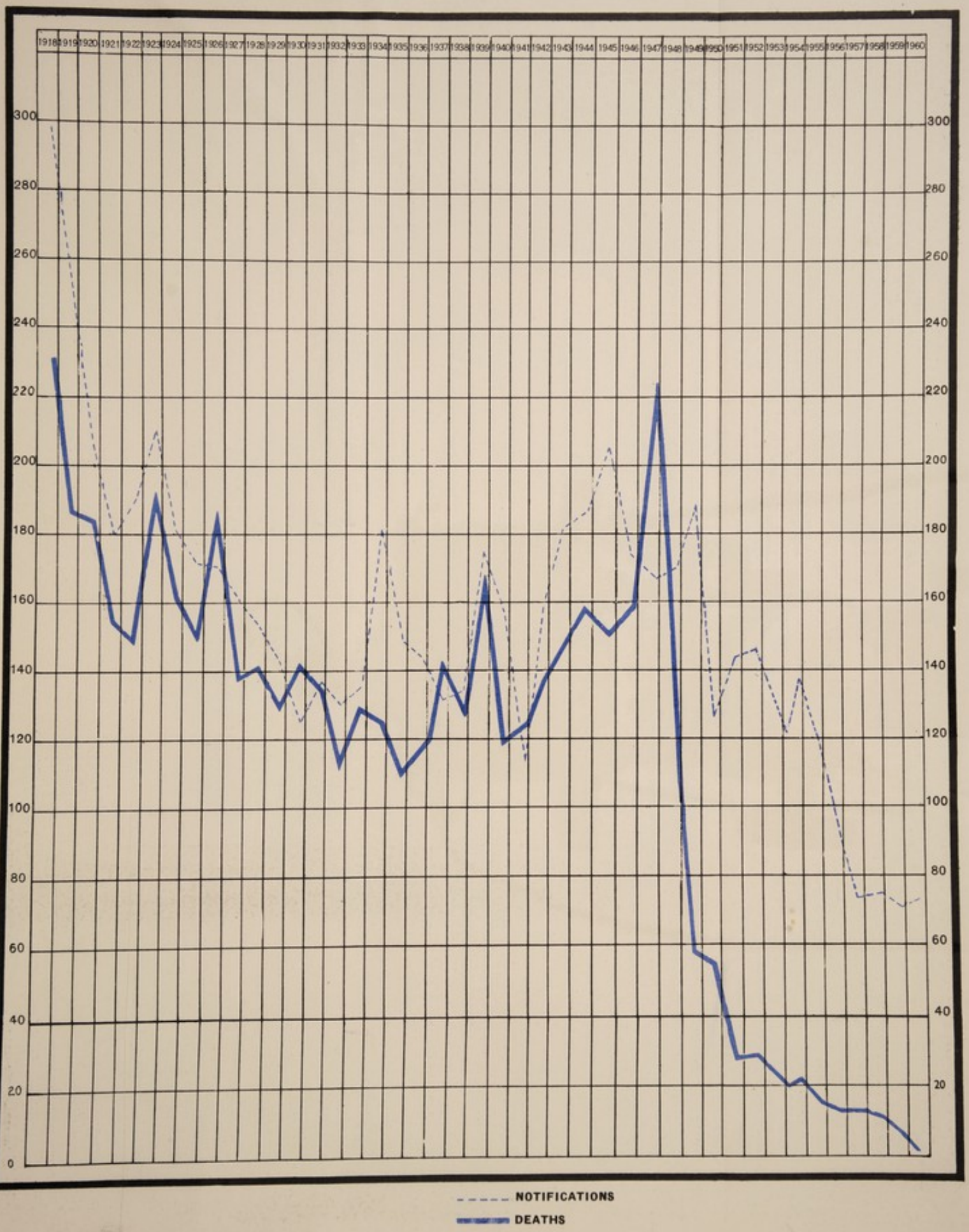
The new orientation towards tuberculosis, the certain hope and confident expectation of the sufferer that he can be and will be cured of his disease, and the effect of modern drugs which have a direct lethal action on the causative organism of tuberculosis have combined to bring about such a change that the fear of a dangerous complacency creeping in is now claiming the attention of all workers in this field of public health. Certain it is that more and more cases are undergoing private treatment at the hands of private practitioners who sometimes fail to notify the case with result that, when eventually discovered, a good deal of damage from the point of view of spread of the disease could have been done and often has already been done. This is a danger that must at all costs be guarded against and in the first half of the year under report a mass X-ray campaign in the City of Port-of-Spain was undertaken to discover precisely what the state of affairs was in regard to Pulmonary Tuberculosis, as it affects the burgesses of the City. All in all 43,777 people at 10 points in the City were given the benefit of a miniature mass X-ray campaign by members of a mobile X-ray van and the fixed van at the Caribbean Medical Centre functioned every day for a period of two months, during which 14,139 persons were X-rayed. Among these persons "about 90 cases of apparently active tuberculosis were seen, about 180 cases of apparently inactive tuberculosis, and about 800 cases of other diseases of the chest". These have all been investigated and where necessary admitted to hospital for treatment. "The numbers of active and inactive cases of tuberculosis which were found have remained approximately unchanged; the great majority of persons with other diseases of the chest were found to have had temporary illness of one kind or another and in the great majority of cases, no evidence of active disease was found when these persons attended for large X-ray films of the chest".

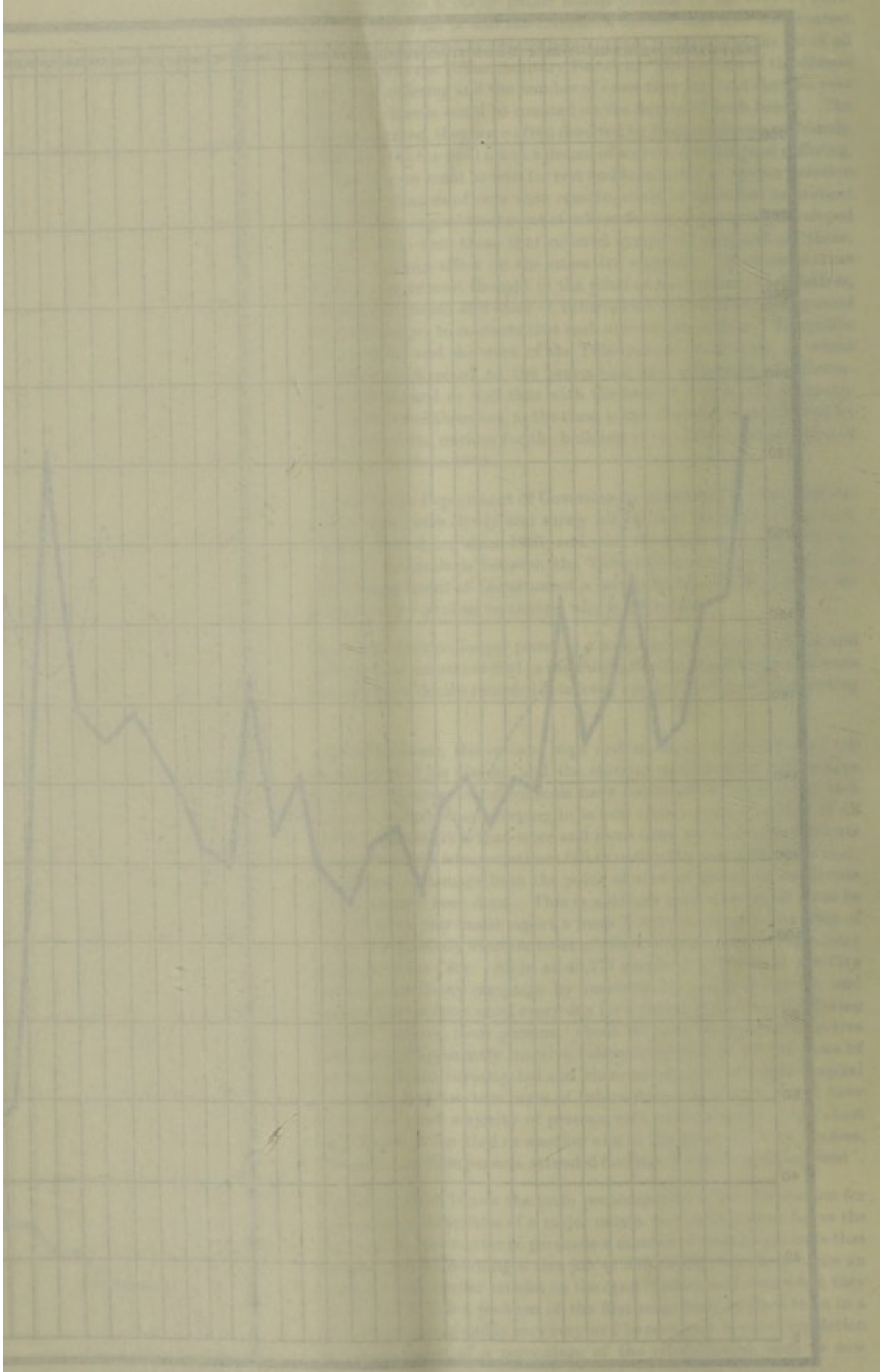
The rehabilitation of cured patients which is now the main preoccupation of the Association for the prevention of tuberculosis is presenting difficulties of a major nature particularly in so far as the male ex-patient is concerned. It is not an easy matter to persuade a number of male ex-patients that they have to spend a sufficiently long time at learning a new job as will enable them to produce an article that can stand up to competition with similar articles on the open market, and even when they have attained the necessary amount of skill it is a problem of the first magnitude to place them in a job; scorn and prejudice have still to be overcome and it may very well be necessary to enact legislation that will enforce the compulsory employment of a percentage of the rehabilitated, such as now obtains in the United Kingdom.

CHART H

Port-of-Spain

Pulmonary Tuberculosis—Notifications and Deaths 1918-1960





Pulmonary Tuberculosis—Notifications and Deaths, 1918-1960

Period	Notifications	Deaths	Death Rate per 100,000 Population
Year 1918	299	233	343
Yearly Averages :			
1919–23	207	173.2	265
1924–28	167.6	154.6	238
1929–33	133.6	12.9	185
1934–38	147.4	124.6	162
Average 1919–38	163.9	145.4	213
Year 1939	175	167	185
1940	155	118	128
1941	113	124	127
1942	157	136	137
1943	182	148	145
1944	186	158	152
1945	206	140	141
1946	173	158	157
1947	222	167	174
1948	170	108	109
1949	189	58	57
1950	127	55	53
1951	143	27	25
1952	147	28	26
1953	122	20	18
1954	137	22	19
1955	120	14	12
1956	85	13	11
1957	73	13	11
1958	75	9	7
1959	70	6	6
1960	73	2	2

Non-Pulmonary Tuberculosis

Whilst non-pulmonary tuberculosis is that form of tuberculosis which has the highest mortality nowadays, it is nevertheless so susceptible to the measures that are commonly applied in preventive medicine at the present time that there is every hope that the day is not far distant when we shall be able to claim that it has been eliminated altogether. There is the difficulty, of course, of diagnosis; many of these cases are diagnosed on the post-mortem table, many more resort to diagnosis and treatment when the disease is already far advanced and has spread to various parts of the body, like the meningeal covering of the brain and spinal cord where the mortality is practically 100 per cent. But seeing that the predominant type of causative organism is the bovine tubercle bacillus, preventive measures directed to the elimination of these bacilli from the flesh of bovines and from the milk they produce by skilled and effective meat inspection, by the boiling and pasteurisation of milk, and especially by the tuberculin testing of cattle and the building up of tubercle free herds can be and should be the means whereby these diseases are brought under control.

During the year under report no cases of non-pulmonary tuberculosis were notified and no deaths were certified to the disease. The table hereunder listed demonstrates that public health measures are bearing fruit and that the deaths from this type of tuberculosis are being slowly but surely reduced.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1960

Forms	Notifications	Deaths
Miliary Tuberculosis	—	—
Tuberculosis of Meninges	—	—
Do. Spine and Bones	—	—
Do. Peritoneum	—	—
Do. Larynx	—	—
Total	—	—

Deaths from Non-Pulmonary Tuberculosis, 1924-1960

Period	Deaths	Rate per 100,000 Population
Yearly Averages :		
1924–28	15	23
1929–33	15.2	22
1934–38	10	13
Average 1924–38	13.4	19
Year 1939	15	17
1940	14	15
1941	6	6
1942	4	4
1943	9	9
1944	10	10
1945	13	12
1946	14	14
1947	11	11
1948	6	6
1949	10	10
1950	14	13
1951	7	7
1952	12	11
1953	6	5
1954	4	3
1955	3	3
1956	3	2
1957	—	—
1958	3	2
1959	—	—
1960	—	—

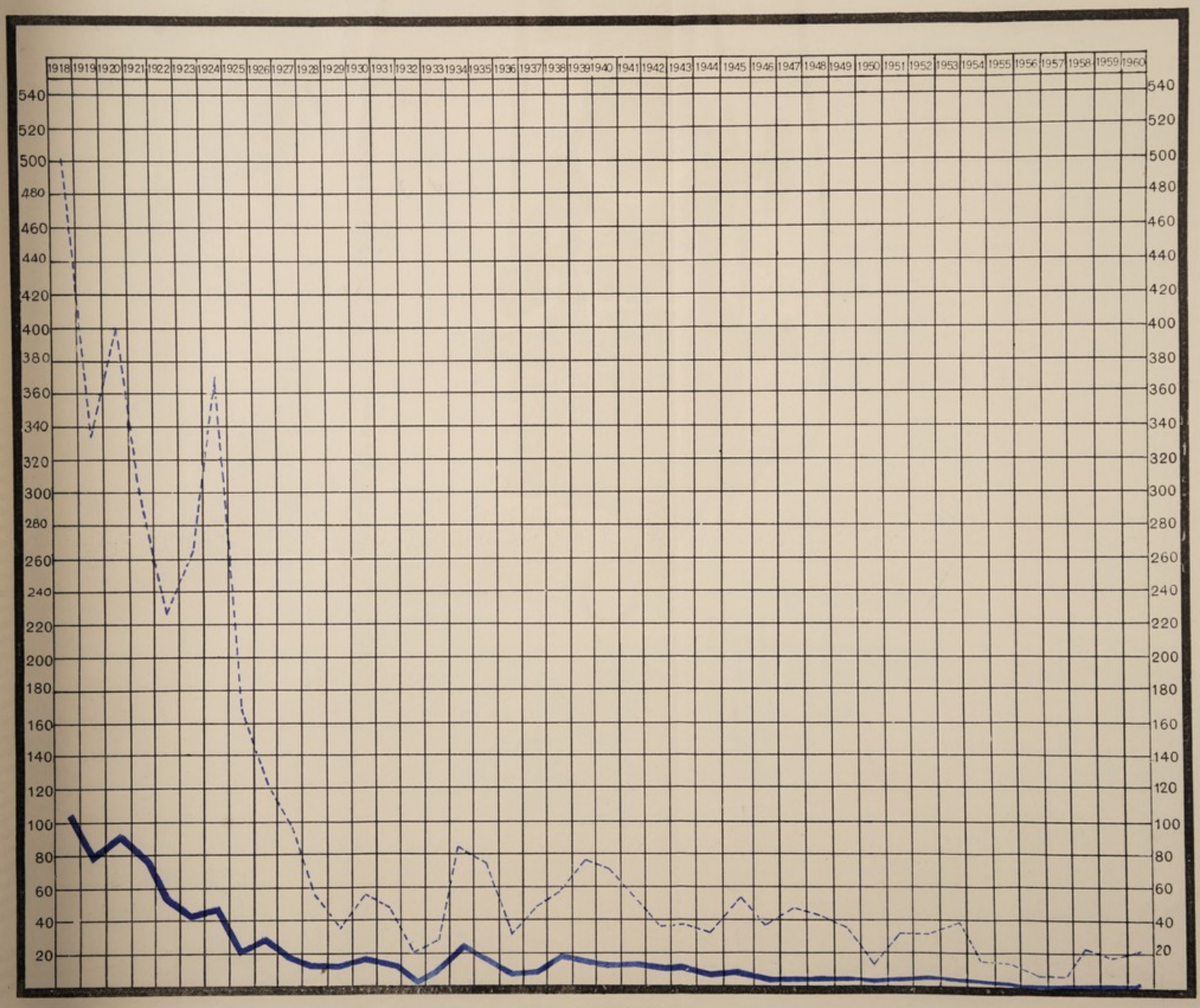
Enteric Fever

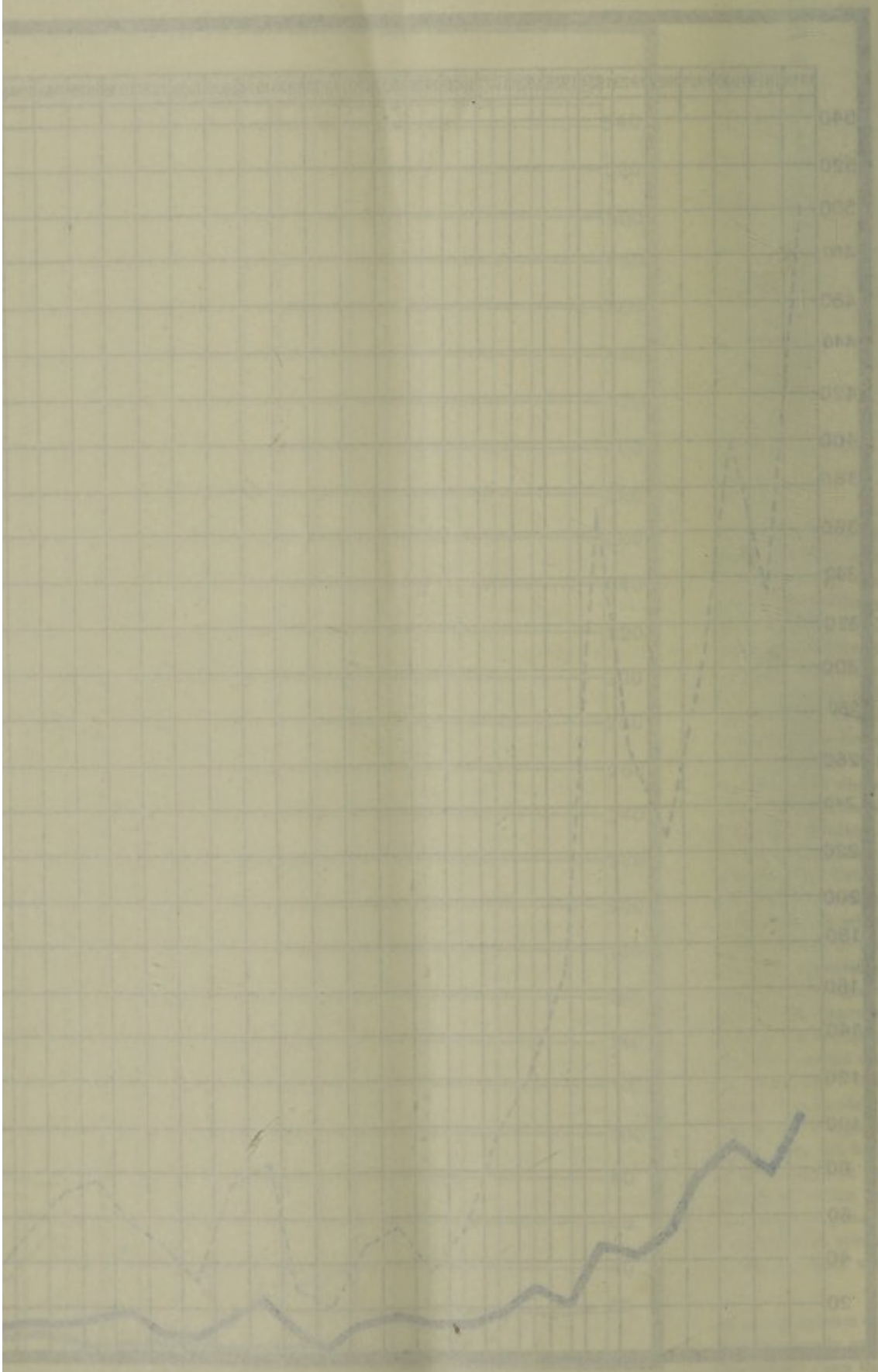
Just as the incidence of pulmonary tuberculosis is usually held to be a very sensitive index of the state of congestion and overcrowding of a sanitary district and of the general poverty and malnutrition of the residents, so does typhoid or enteric fever indicate in a very special way the efficiency of the disposal of sewage and the general resistance to infectious disease of the residents of the area. For it is an undoubted fact that if the infected faecal matter of a person suffering from this disease is promptly and effectively disinfected and disposed of, and if no ready means exist whereby it can again gain entry to the body of a healthy individual and reproduce the disease, enteric or typhoid fever must inevitably come to an end. The aim of all modern methods of sanitation and of the water-borne method of sewage disposal particularly, is to lower the incidence of the bowel filth diseases of which typhoid fever is perhaps the most important, and eventually to eliminate them altogether. The water-borne sewerage system insures the speedy removal of faecal matter and particularly infected faecal matter from inhabited premises and its ultimate disposal in a place where it can exert no harmful effect. It is obvious, therefore, that any system of conservancy which permits faecal matter to be retained in and about premises carries with it a grave potential risk that the faecal matter, if by chance it happens to be infected, may cause the spread of typhoid fever, dysentery, and other bowel filth diseases. In the City of Port-of-Spain, where less than one-half of the Urban Sanitary District is sewered, there still remains the privy cesspit system of disposal with a certain number of premises being sewered by local sewage disposal systems such as septic tanks or what is much more usual, cesspools. It is clear, therefore, that in these unsewered areas the risk of the spread of typhoid fever is a real one, a risk that is ever present but very considerably diminished by the constant oiling and disinfecting of those areas, which is an important part of the regular routine work of the Department but which is intensified whenever a case of typhoid fever occurs in the district. In these circumstances oiling of all privy cesspits within a circle a mile wide is undertaken in addition to measures of disinfection applied to the premises themselves where the case occurred and to the particular pit where it is almost certain that infected faecal matter has been deposited. It is true that by these and other measures including the active immunisation of contacts, the incidence of typhoid fever has been kept down and fewer and fewer cases are occurring each year, but if typhoid fever is to be completely eliminated from the Urban Sanitary District the whole of the City will have to be sewered and a sufficiency of water supplied for the immediate flushing of lavatories and the prompt removal of all contaminated matter from the affected premises. Typhoid fever within the limits of the City is almost certainly not water-borne, the water supply being made and kept potable by the chlorination of all sources and by the maintenance of a residual in the distribution system to make sure that any possible contamination occurring in the latter system can be dealt with immediately.

The typhoid fever that is occurring nowadays in the City of Port-of-Spain is in my opinion due to three causes: (1) contaminated foodstuffs and particularly those foodstuffs that are usually eaten raw and uncooked like water cress, lettuce, cabbage, tomatoes, fruits, &c.; (2) secondary cases that arise from a missed or wrongly diagnosed primary case; (3) carriers.

CHART I
Port-of-Spain

Enteric Fever—Notifications and Deaths 1918-1960





The preparation and sale of foodstuffs by clean, healthy, and intelligent people under improved hygienic conditions and the efficient protection of such foodstuffs from contamination by covering or wrapping the foodstuffs, as well as—and this would appear to be the most important requirement—an extensive and properly conducted health education campaign directed to the raising of the standard of hygiene in the food trade, are the means that must be adopted to deal with the first cause; the immediate removal of all suspected cases of typhoid fever to hospital and the active immunisation of contacts with an efficient vaccine, the disinfection of premises and particularly fomites, the prompt oiling of cesspits and the emptying of septic tanks and cesspools by the vacuum emptier with the disposal of their contents at the Mucurapo Pumping Station, are the measures that are necessary to deal with the second cause. Carriers, the third cause, still pose a problem; in spite of every effort by the hospital services to prevent or eliminate the carrier state in a case of typhoid fever before discharge there still remains a certain number of cases that continue to discharge bacilli in their urine or faeces in spite of all methods of modern treatment and so remain a potential source of danger. I have no doubt that a few such cases can be found in the Urban Sanitary District and the problem that they present is a difficult one; such cases must be kept far away from places and persons connected with the food trade.

It is a matter of interest that the last big epidemic of typhoid fever in the Territory which originated in 1933 in the San Juan-Barataria District and which spread eventually to the City was found to be due to the consumption of infected water drawn from the San Juan River.

Enteric Fever

Notifications and Deaths, 1918-1960

Period	Notifications	Deaths	Death Rate per 100,000 Population
Year 1918	495	104	152
Yearly Averages :			
1919–23	301.8	67.8	103
1924–28	162.28	25.2	39
1929–33	37	10.8	16
1934–38	59.8	14.6	19
Average 1919–38	140.3	29.6	44
Year 1939	75	15	17
1940	70	11	12
1941	56	14	14
1942	37	12	12
1943	38	12	12
1944	32	9	9
1945	55	10	9
1946	37	8	8
1947	68	7	7
1948	42	5	5
1949	36	5	5
1950	14	3	3
1951	32	5	5
1952	32	8	7
1953	36	3	3
1954	15	3	3
1955	13	1	1
1956	9	—	—
1957	9	—	—
1958	23	2	2
1959	18	—	—
1960	21	1	1

Inoculation of Enteric Fever Contracts, 1960

T.A.B. Injections

Year	Number Receiving one Injection	Number Receiving two Injections	Total
1947	250	222	472
1948	85	61	146
1949	101	44	145
1950	64	32	96
1951	329	249	578
1952	66	26	92
1953	213	146	*359
1954	101	46	147
1955	50	21	71
1956	43	10	53
1957	40	27	67
1958	412	249	661
1959	153	67	220
1960	84	25	109

*Mass inoculations were carried out during the 1953 outbreak of Enteric Fever at Arima and 8,250 City inhabitants, in addition, were inoculated.

Pneumonia

Pneumonia tops the mortality list attributable to diseases of the Respiratory System and has displaced pulmonary tuberculosis, which once occupied pride of place, almost to the bottom of the list. It is a notifiable infectious disease which has always been responsible for a high mortality and which could, when it did not lead to the death of the victim, cause such a degree of invalidism and often give rise to such serious complications like pulmonary tuberculosis, lung abscess, brain abscess, empyema, heart disease and anaemia, that the complacency that has now taken the place of the fear and alarm that once characterised the occurrence of the disease in a household is highly dangerous and thoroughly unjustified.

At one time it was a disease that practitioners used to notify with meticulous care and in regard to which the number of notifications received always exceeded the number of deaths certified, but such a change has taken place since 1946 that the deaths certified to this disease now exceed by more than twice the number the notifications that reach the Public Health Department. In other words practitioners are not nowadays paying the same careful attention to notification of the disease as they did in the past and are inclined to proceed straightway to the treatment of the case with the newer drugs like the sulpha drugs and the anti-biotics like penicillin, &c. that are now available, completely oblivious of the fact that the infection can and does spread readily to other members of the family and that it is possible for the disease to assume epidemic proportions such as it did in the year 1942 and 1943 when 372 and 251 cases of the disease were notified and 112 and 149 deaths certified respectively.

In spite of the efficiency of the newer drugs pneumonia still exerts a high toll of mortality and in the overcrowded and congested sub-districts of the City where the poor, undernourished, and often alcoholic reside, where sanitation and environmental hygiene are sub-standard, pneumonia is a serious disease which can and does spread from person to person and which leaves behind a long train of complications that may lead to the fatal termination when the disease itself fails to do so.

It is in circumstances such as these that the preventive measures of isolation, detection of contacts, and disinfection must be resorted to and patients should be given the opportunity of removal to hospital where isolation and current disinfection can be more effectively applied.

Practitioners are hereby reminded of their statutory duty to notify cases of pneumonia as early as possible and so give the Public Health Department the opportunity to institute immediately preventive measures directed to the limiting of the spread of the disease. It does not at all follow that the Department is going to insist on removal to hospital ; if we are satisfied that the conditions of the home are such that effective isolation can take place the need will not arise, but at the very least other preventive measures will be applied and the Department will be in the position to sort out contacts and to keep an eye on the premises and its surroundings in their effort to supplement and enhance the efforts of the practitioner.

In the year under report 23 cases were notified and over four times that number were certified to pneumonia ; many of these were, of course, cases of terminal pneumonia, the ultimate complication of a long and debilitating disease, but 30 deaths due to primary atypical, and other and unspecified pneumonias, which nowadays are usually termed virus pneumonias, were recorded, in regard to which no notifications were received.

Pneumonia—(All Forms)
Notifications and Deaths, 1922-60

Period	Notifications	Deaths	Death Rate per 100,000 Population
Yearly Averages :			
1922–26	111.8	78	123
1927–31	69.8	53.4	79
1932–36	155.4	80.6	110
Average 1922–36	112.3	70.7	104
Year 1937	125	85	110
1938	101	70	83
1939	107	59	65
1940	69	63	68
1941	138	88	90
Average 1937–41	108	73	83

Notifications and Deaths, 1922-60—*Continued*

Period	Notifications	Deaths	Death Rate per 100,000 Population
Year 1942	332	152	153
1943	251	149	146
1944	109	97	93
1945	118	79	74
1946	87	61	61
1947	75	64	67
1948	62	51	52
1949	73	74	73
1950	64	54	52
1951	81	80	75
1952	68	72	66
1953	46	52	47
1954	48	58	51
1955	39	65	56
1956	38	67	56
1957	27	83	69
1958	22	59	49
1959	30	70	70
1960	23	93	99

Diphtheria

As I have stated before in previous annual reports, diphtheria is an infectious disease that is becoming a source of anxiety to public health workers all over the country and Medical Officers of Health are having to answer more and more questions from parents who are getting more and more conscious of the seriousness of the disease. More and more cases are making their appearance in the Urban Sanitary District and though the disease remains predominantly of the mild type, yet cases are apt to be missed because the diagnosis is not always borne in mind in any and every case of throat trouble, and deaths are apt to occur from the involvement of the larynx.

With each succeeding year it is becoming increasingly clear that a campaign of active immunisation of pre-school children and school children of the City cannot now be too long delayed, and it is here advocated that immunisation with the triple vaccine which secures immunisation against whooping cough, tetanus, and diphtheria by the use of one single combined vaccine should be given an extensive trial with a view to assessing the results obtained as against the use of diphtheria toxoid alone.

It is a matter of importance that this disease be always borne in mind in any case of sore throat and at the least suspicion of the disease swabs be taken and sent to the Government Bacteriolgical Laboratory for confirmation of the diagnosis and for test of virulence, but that treatment with antitoxic serum be instituted forthwith and not withheld until the results of the analysis have been obtained. Extension of the disease to the larynx is such a serious complication that nothing should be left undone that will prevent that possibility.

There is no difficulty nowadays in getting contacts to come willingly and promptly to the Department for protection against the disease and it is customary to immunize actively all such contacts, two doses of APT being given to children and three doses to TAF to adults. This is considered preferable to giving antitoxic serum which confers a passive immunity only, of short duration, tends to the development of antitoxic and anaphylactic reactions later on if serum has to be administered to the developed case, and may serve to mask the development of the clinical cases making them more dangerous as carriers of the disease.

During the year under report 19 cases of diphtheria were notified and one death certified to the disease. The largest number of cases notified was in the year 1939 when 61 cases were notified with 2 deaths. These cases were nearly all of a mild type, " diphtheria mitis ", and occurred for the most part at the Belmont Orphanage where an undetected convalescent carrier succeeded in transmitting the disease to 14 other children between the ages of 1-5 and 6-10 years.

Diphtheria

Notifications and Deaths, 1917-60

Period	Notifications	Deaths	Death Rate per 100,000 Population
Yearly Averages :			
1917–21	11.8	1.4	2
1922–26	14.8	2	3
1927–31	23.8	1.6	2
1932–36	29.8	2.2	3
Average 1917–36	20	1.8	3
Year 1937	30	4	5
1938	16	3	4
1939	61	2	2
1940	37	2	2
1941	30	2	2
Average 1937–41	34.8	2.6	3
1942	18	3	3
1943	40	4	4
1944	19	3	3
1945	20	5	5
1946	22	2	2
1947	23	2	2
1948	9	1	1
1949	11	2	2
1950	37	3	3
1951	28	1	1
1952	20	1	1
1953	33	1	1
1954	26	1	1
1955	20	1	1
1956	17	—	—
1957	19	1	1
1958	14	2	2
1959	26	2	2
1960	19	1	1

Chicken Pox

In the year under report the Public Health Department has had to contend with the aftermath of an outbreak of Chicken Pox which occured the year before, i.e. in 1959, and 136 cases were notified, the second largest number of notifications during the past 12 years. No deaths were certified to this disease; this has been the case since 1917 when the Local Sanitary authority was first established and when, as a result, it was possible to compile accurate statistics relating to the City as a whole.

Though chicken pox is a highly infectious disease and one can be certain that when once a case has occurred in a family it is going to be difficult to prevent other members of the family from acquiring the infection and suffering from the disease, it is not an infectious disease that causes much concern or alarm except in the overcrowded and congested sub-districts of the City; and whenever a case occurs in any of the many dilapidated and insanitary dwellings of the East Dry River and Belmont Sub-districts it is customary for large numbers of contact cases to arise and for the disease to spread far and wide affecting all susceptibles in an ever-widening circle. In such circumstances a certain number of severe cases do occur which immediately bring the possibility of small pox to mind and make it imperative for the Medicoal Officer of Health to pay a visit to the premises with a view to establishing the diagnosis and sometimes even to direct the removal of the case to hospital, when home conditions are such that effective isolation at home is not possible or where it is important that further investigations be undertaken or that the progress of the case be observed in hospital. A missed case of small pox or small pox mistaken for chicken pox could, of course, lead to a dangerous epidemdic of small pox with all the international complications that that entails.

It is important to bear in mind the fact that whilst chicken pox hardly ever leads to a fatal terminanation yet complications of a serious nature can and do arise which may eventually cause death, if not promptly taken in hand. It is not unusual for a very debilitated malnourished person convalescing from a serious attack of chicken pox to fall a victim to pneumonia or even to pulmonary tuberculosis, and a case of encephalitis following chicken pox has been demonstrated to me with, fortunately, complete recovery after a few weeks in hospital.

Chicken Pox

Notifications, 1924-60

Period	Notifications	Period	Notifications
Yearly Averages:			
1924–28	19.8	Year 1949	57
1929–33	41	1950	96
1934–38	110.4	1951	95
1939–43	42.6	1952	94
1944–48	91.8	1953	51
		1954	133
		1955	113
		1956	101
		1957	110
		1958	45
		1959	159
		1960	136

Malaria

The position in regard to malaria, which is now a notifiable infectious disease and which was declared notifiable in March, 1956 for the specific purpose of ascertaining as far as possible the exact incidence of malaria in the Territory, remained substantially the same in 1960 as it was in the previous year 1959 and which was detailed in my report for the year 1957.

To repeat, there is very little malaria within the limits of the City and what there is, is due to importation from outside, i.e., cases which have acquired malaria outside the City and which have come into the City for treatment, and old febricitants who once lived in a malarious area but who have now taken up residence within the City's limits and who get periodic recrudescences due to the lowering of resistance of an infection that was never really eradicated.

That is not saying that no anophelene mosquitoes are to be found within the City's limits; in the wet season, particularly, it is possible to pick up mosquito larvae of anophelene species in the swampy areas at the extreme eastern and western limits of the City but these have never created a problem as they have always been easily brought under control by the time-honoured measures of oiling, draining, cutlassing, &c. It is clear, however, that the culex and anopheles section of the Anti-Mosquito Unit has always to be on the *qui vive* and gangs have at all times to be deployed at the various points of the City where anophelenes from the adjoining areas to the east, north-east, and west are likely to establish breeding grounds.

In so far as the malaria problem of the Territory is concerned the facts are that malaria is with each succeeding year becoming less and less a public health problem, and the accent now is on malaria eradication, to attain which there is a well-planned and properly directed campaign in actual execution at the time I write and the results being achieved bid fair to get rid of any malaria carrying anophelenes, and to reduce the malaria problem to one of complete insignificance.

In so far as the areas that adjoin the City are concerned, I have in previous reports recorded the fact that the Laventille Swamp together with the contiguous Success Village, which were at one time a hot-bed for the breeding of malaria mosquitoes and in which latter village there occurred many cases of malignant malaria, can now be considered free of malaria and a source of great potential danger to the City has been eliminated. The same cannot be stated, however, in so far as the Cocorite Swamp is concerned. It is true that this swamp and the adjoining areas are kept under the close supervision of and are subjected to the effective control of, the Malaria Division of the Health Department of Government, but the works that are executed here, in which the Public Health Department of the City assumes its share of responsibility, are of a temporary nature only and the permanent major works of swamp reclamation which I have been advocating year in year out have not yet been undertaken, a project that would result in the laying out of a large number of building lots and in the development of a residential area destined to relieve the acute congestion and the serious shortage of housing accommodation that now affects the City and its suburbs.

I would be failing in my duty were I not to record the gratitude of the Local Sanitary Authority to the Malaria Division of the Health Department of Government for the active co-operation and ready assistance given in all the many and varied mosquito problems that affect the City.

Malaria will soon become a rarity because of the energy and the despatch with which a major public health problem has been and is being tackled. The benefits to industry in the saving of a considerable number of man-hours previously lost, to agriculture in the opening up, to commerical intercourse and to cultivation, of areas once heavily infected with malaria, to animal husbandry in the increased incentive given to the rearing of cattle, pigs and sheep, will constitute, when they are fully appreciated, one of the major advances in health, welfare and happiness that public health measures have succeeded in achieving.

The work of the anophelene and culex sections of the Anti-Mosquito Unit of the Public Health Department continued unabated in the year under report and it is obvious that these workers must always be on the alert and must persevere with their day-to-day routine if the position won after so many years of consistent effort devoted to the elimination of potential anophelene breeding grounds is to be maintained.

No return, in which the cause of death was certified to be malaria, was received at the Public Health Department during the year under report.

Malaria—Local Distribution of Deaths, 1951-60

Sub-Districts	Deaths									
	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
City Proper ...	—	—	—	—	—	—	—	—	—	—
St. Clair	—	—	—	—	—	—	—	—	—	—
East Dry River ...	—	—	—	—	—	—	—	—	—	—
Belmont	—	—	—	—	—	—	—	—	—	—
Woodbrook ...	—	—	—	—	—	1	—	—	—	—
St. James ...	1	—	—	1	—	—	—	—	—	—
Total ...	1	—	—	1	—	1	—	—	—	—

Acute Anterior Poliomyelitis

This is an infectious disease that is usually associated with a good deal of scare and alarm whenever and wherever an outbreak occurs, and considering the high mortality that certain types of the disease give rise to and the crippling results that the disease can produce, it is fortunate that we, in this Territory generally and in the City especially, have been so luckily spared seeing that so few cases of the disease are notified and, in fact, do occur normally.

Large numbers of cases of this disease do, of course, occur in the United States of America, in the United Kingdom and in the large cities of Europe, and it is true that the disease is endemic in Trinidad and Tobago and that occasional outbreaks do occur such as we had in 1942 when 26 cases and in 1954 when 35 cases were reported, but it cannot be stated with truth that we have had to endure the havoc, misery, and suffering that this disease has inflicted on other peoples and in other countries of the world. The disease so far has maintained the mildness which has on the whole been a feature of the outbreaks of 1926 with 3 deaths and of 1954 with no deaths, but how long this not unfavourable state of affairs is likely to continue no one can tell ; a change in type of the disease with all the dire consequences attendant upon this is a possibility that cannot be discounted, now that sea and air traffic has brought us in such close touch with countries which are severely afflicted. Fortunately vaccines that are potent and effective are now available and it may very well be that a vaccination programme with the Salk or similar vaccine may have to be undertaken in the not too distant future. Certain it is that more and more requests for vaccination are being received at the Department with each passing year.

During the year under report only 1 case of acute anterior poliomyelitis was notified to the Department.

Acute Anterior Poliomyelitis

Notifications and Deaths, 1927-60

Year	No. of Cases Reported	Deaths	Year	No. of Cases Reported	Deaths
1927–29	—	—	1947	—	1
1930	5	1	1948	3	2
1931	—	2	1949	4	—
1932	3	—	1950	—	—
1933–35	—	—	1951	—	—
1936	3	—	1952	3	—
1937	10	1	1953	—	—
1938	2	—	1954	35	—
1939	1	—	1955	2	—
1940	—	—	1956	—	—
1941	15	4	1957	13	—
1942	26	3	1958	5	—
1943–44	—	—	1959	1	—
1945	—	1	1960	1	—
1946	1	—			

Other Notifiable Infectious Diseases

One case of Cerebro-Spinal Fever was notified to the Public Health Department in the year under report. No notifications of, or deaths from, Paralytic Rabies, i.e. Acute Ascending Myelitis, or Encephalitis Lethargica were received during 1960. No case of Plague, Cholera, Typhus, Yellow Fever or of Small Pox,—variola major or variola minor—(Alastrim) was reported to the Public Health Department during 1960.

NON-NOTIFIABLE INFECTIOUS DISEASES

Under this heading are listed diseases which can be and very often are highly infectious or have been known to spread very rapidly in the area where they are occurring ; in fact some of these diseases have been known to spread all over the civilized world in the nature of waves of infection and to be responsible for a very high mortality. I refer particularly to the disease influenza which has bene responsible for several pandemic waves of infection and which in the great pandemic after World War I was the cause of more deaths than occurred during the whole four years of hostilities.

It is customary to include under this heading eight diseases; three of which are usually spread by means of droplet infection. : viz. measles, whooping cough, and influenza ; two by direct contact with the person suffering from the disease : viz. syphilis and leprosy ; two by infection of the body with contaminated faecal matter : viz. dysentery and ankylostomiasis ; and one by means of an intermediate host, though malaria has now been declared a notifiable infectious disease and is so listed.

Measles and whooping cough are common diseases and occur during childhood particularly ; they are among the major causes of the chest troubles that children suffer from by reason of the lung complication that occurs so frequently during their course, e.g. broncho pneumonia. In fact measles can spread so rapidly and whooping cough can be responsible for so much disability that in times of great prevalence they can be and have been known to be declared notifiable in order that the public health officer be given the opportunity to sort them out and isolate them under conditions which would limit their spread, and to apply the well-known preventive measures of current and terminal disinfection of cases and fomites and the inoculation of prophylactic vaccines.

Syphilis and leprosy are diseases that are spread by intimate contact, and in the case of leprosy close and direct contact over a period of years seems to be the only method by which the disease may be transmitted as has been demonstrated in leprosaria all over the world and even at our own leprosarium at Chacachacare. The toll of mortality that they exact is appreciable enough, but they are in addition the cause of much suffering, misery, social stigma, and economic wastage due to the loss of labour and manpower, chronic invalidism, and disease of the various systems of the body. It is for this reason that the Venereal and Leprosy Division of the Health Department of Government are actively engaged in a campaign whose objective is the detection of cases, the curing of the disease, and the prevention of the spread of infection by a well directed health education programme.

Ankylostomiasis is a rare disease within the limits of the City but cases can occur and do occur occasionally in the upper hilly areas of the East Dry River and Belmont Sub-districts where faecal matter is apt to escape from defective privy cesspits and to contaminate the toes and feet of residents who go about barefooted and so start the chain of infection.

Dysentery and Diarrhoea and Enteritis are conveyed through the agency of food, especially foodstuffs of the green variety that are usually eaten raw like cabbage, water cress, lettuce, spinach, tomatoes, fruit that is eaten unwashed and unpeeled : and milk, food, and fruit that are contaminated with faecal matter infected with the causative organisms. They are capable of causing a high mortality and diarrhoea and enteritis especially is responsible for a large number of deaths of infants under one year of age and in children of the pre-school period.

It is not possible to state with any degree of certainty how prevalent are these diseases in the Urban Sanitary District since only the death returns are available to gauge their incidence, and with the increasing success that is attending treatment with the newer drugs it is clear that the mortality attributable to these diseases is getting lower and lower.

Even the death returns do not give a completely correct picture of the state of affairs due to the fact that many death returns give as the immediate cause of mortality many of the complications of the disease, and it is only by a close analysis of the returns does it become clear that the underlying cause which was responsible for the death of the patient was indeed and in fact one of these non-notifiable infectious diseases. Such for instance is a death which is stated to be due to aortic aneurysm, cerebral thrombosis, hemiplegia, coronary thrombosis or even aortic regurgitation, all of which are often caused by syphilis which is the underlying basic disease that gave rise to the complication that was the immediate cause of death. Liver abscess may be the only clinical manifestation of amoebic dysentery, and may be responsible for the death recorded; likewise anaemia may be due to ankylostomiasis, and mycoardial degeneration to influenza.

It is therefore very likely that quite a number of these diseases are occurring in the City and are causing a good deal of illness and disability and only by a proper system of notification would it be possible to gauge their incidence.

Non-Notifiable Infectious Diseases—Home and Hospital Deaths, 1960

Diseases	Deaths			Hospital Deaths Percentage of Total Deaths	Corresponding Percentage for the year 1959
	At Home	At Hospital	Total		
Whooping Cough	2	—	2	—	—
Influenza	—	—	—	—	11.76
Dysentery	1	—	1	—	100.00
Ankylostomiasis	—	1	1	100.00	—
Syphilis	4	8	12	66.67	38.46
Leprosy	—	—	—	—	—
Total	7	9	16	56.25	24.00

Syphilis

Syphilis makes such widespread and dangerous incursions on all tissues of the human body that its importance as a public health problem of the first order cannot be over-estimated. The problems that syphilis presents are in part clinical, in part preventive, in part sociological. The clinical problems of syphilis are being adequately and efficiently tackled by the Venereal Diseases Division of the Health Department of Government which had its beginning in the year 1943 by the establishment of a centre for venereal diseases in the old U.S.O. Building in Wrightson Road, supported then by funds provided by the Development and Welfare Organisation and by the Central Government, and at that time under the care, control, and direction of Colonel O. C. Wenger, that " aggressive syphilis fighter " as Kahn calls him, of the American Army. This Division is now an integral part of the Health Department of Government and is run by local personnel with funds allocated by Government in each year's budget.

The results which have been achieved by the Division in the detection and treatment of venereal disease, in the awakening of the public conscience to the dangers and ravages of these diseases, in the re-education and sometimes even the rehabilitation of the known members of the prostitute class who are in the main responsible for the ready spread of the disease, are indeed gratifying. Insofar as the City of Port-of-Spain is concerned the work of this Division of the Health Department of Government has been of inestimable value to the Public Health Department and once more the Local Authority desires to record its gratitude for the solid achievements of the Division and for the great benefit to the public health of the City that has accrued from its activities.

The more overt manifestations of syphilis are nowadays quite rare and it is an uncommon experience to encounter in the course of the daily routine a case of primary chancre, and when one does occasionally, whilst examining labourers or food handlers, there is no difficulty whatsoever in persuading such patients to go to the Caribbean Medical Centre for treatment and advice and they are known to persevere with their treatment until they have been pronounced cured ; this is in marked contrast to what obtained 10 years ago when it was extremely difficult to get such cases to continue with their treatment especially after the primary chancre had healed ; as a direct result the secondary and tertiary manifestations of the disease are being prevented from making their appearance. The tissues of the central nervous system, of the heart and blood vessels, of the liver and kidneys are nowadays the chief seats of the clinical manifestations of syphilis and this is undoubtedly due to the fact that the inadequate and inconclusive treatment of former days is making its influence felt in the form of this attack on these very delicate and vulnerable tissues. The tertiary manifestations of syphilis are in the first place less amenable to treatment than the primary disease and in the second place they play an important part in the large number of diseases of the heart and blood vessels that are occurring nowadays and which are responsible for an ever increasing toll of mortality.

It is clear therefore that the only hope lies in a concerted drive to prevent this disease by educating prospective victims as to the dangers of the disease and how it can be acquired, what means can be applied to prevent it, what facilities exist for the prompt and effective treatment of the disease if by chance it has been acquired, and how its spread to others can be limited ; and it is gratifying to be able to record that it is exactly such a campaign that is being actively prosecuted by the Venereal Disease Division of the Health Department of Government.

The sociological problem that venereal disease presents is that more and more it is being recognised that the main source of the disease under modern conditions is members or the prostitute class who, sometimes through ignorance and sometimes through actual perversity, continue to spread the disease. This type of person is slow to go to the Clinic and persuasion seems to have very little effect ; it would appear that the compulsory notification of this class will have to be seriously considered, though the collateral problems of the possibility of driving the disease underground, the question of aid from the Government, &c. are of sufficient importance to cause an acute difference of opinion as to the value of notification. It is, of course, a well recognised fact that the returns that

list syphilis as the cause of death represent only a proportion, perhaps only a minor proportion, of the deaths that are attributable to the disease due, to a large extent, to failure on the part of the practitioner to fill in adequately and correctly the death certificate. A death ascribed to cerebral thrombosis, hemiplegia, meningitis, aneurysm, aortic regurgitation, coronary thrombosis, or even to aortic sclerosis, is often a death that should have been certified to syphilis, which is the basic underlying systemic disease that has given rise to the complication that led to the terminal event.

Deaths from Syphilis, 1918-58

Period	Deaths	Rate per 100,000 Population
Yearly Averages:		
1918–22	16.2	24
1923–27	56.8	88
1928–32	28.2	41
1933–37	21.8	29
Average 1918—37	24.6	37
Yearly Average 1938-42	24.6	27
1943	29	28
1944	36	35
1945	22	21
1946	20	20
1947	21	22
1948	8	8
1949	7	7
1950	8	8
1951	11	10
1952	6	5
1953	7	6
1954	8	7
1955	13	10
1956	18	15
1957	13	11
1958	17	14
1959	13	13
1960	12	13

Dysentery, Diarrhoea and Enteritis

These infectious diseases are usually considered together and the only reason, perhaps, why this is done is due to the fact that their method of spread follows a common pattern, i.e. the infection of the intestines of man by swallowing excreta contaminated with the causative organisms. Though the organisms vary, being bacilli of the food poisoning type, i.e. salmonella sometimes, true dysentery bacilli at other times, and protozoa occasionally, in order to initiate the disease these organisms must find their way via the mouth to the intestinal tract of man and this is generally done through the medium of contaminated foodstuffs, particularly those of the green variety that are usually eaten raw or partially cooked and those of the made-up variety that are subjected to much handling like ice cream, mayonnaise, pies, sausage, pastry, &c. It also does happen on occasions that tinned foodstuff is the vehicle whereby these infections are introduced into the body, particularly tinned foodstuffs that are in the early stage of blowing due to inadequate and improper processing. Transmission from case to case by fingers and fomites is, of course, a possibility, if those who are attending or nursing a case of these diseases are not careful about disinfecting and washing their fingers thoroughly before partaking of food or are victims of that disgusting habit of licking or sucking the fingers, but this method of spread is rare and exceptional.

Inaccurate and incomplete certification of the causes of deaths may cause returns to be labelled dysentery or diarrhoea when the basic underlying cause is cancer of the bowel or intestinal tuberculosis, but these errors are rarely met with nowadays with the greater care that is being exhibited in the certification of causes of death since the adoption of the International Classification of 150 causes of morbidity and mortality particularly.

The diarrhoea and enteritis of infants appears to be a disease *sui generis* and is caused by organisms of either the food poisoning or dysentery variety. It appears certain that the vehicle of transmission is contaminated milk or liquid food in which fresh milk or dried milk or condensed milk forms the essential part. Exposure of this type of food to the dirt, dust and germs of the atmosphere in an open kitchen or pantry where the temperature is suitable for the rapid multiplication of organisms almost invariably leads to contamination. It is important to bear in mind that milk foods are very susceptible to contamination and should be consumed almost as soon as they are prepared and the greatest care given to bottles, spoons, saucers, cups and last but not least to the hands of those in attendance upon infants and young children. That flies play some part is almost certain seeing that these cases are more prevalent whenever there is an outbreak of fly nuisance, such as occurs

during the early dry season in poorly sanitated areas where there is an accumulation of vegetable or animal organic matter with the necessary moisture to provide the medium suitable for the hatching out of fly larvae. Infants and children in these areas fall easy prey to the disease and seeing that it is in these areas the poorer sections of the community live, in whom undernourishment and malnutrition are common findings, it is not surprising that the disease exacts such a high toll of mortality.

There appears also to be some connection between the disease and the privy cesspit system of sewage disposal, for analysis of the death returns in which diarrhoea and enteritis was certified to be the cause of death proves conclusively that, by far, more infants and children succumb to this disease in the unsewered areas. It is in these areas that the link between non-fly-proof privy cesspit and exposed foodstuffs is so easily supplied by the domestic housefly whose breeding place is invariably in the heaps of vegetable and organic matter that can usually be found on these premises.

Preventive measures designed to secure clean wholesome food, milk and ice cream that is effectively pasteurised, and generally to prevent the contamination of foodstuffs with dirt, dust, vermin, flies and other insects, and at the same time to improve the general level of environmental hygiene, with the diminution of congestion and overcrowding, and last but not least the elimination of the privy cesspit system by the substitution of a water-borne sewerage system, are an urgent necessity if the number of cases in this group of diseases is to be substantially reduced.

The outbreak of this disease affecting infants and children, which started in 1958 with 104 deaths, settled down to 69 deaths in 1959, and to 57 deaths in 1960, but this latter figure is till too high a price to pay for a disease which is capable of yielding to strict measures of control and treatment. Analysis of the returns, sub-district by sub-district, again demonstrated the constant finding that unsewered areas of the City furnished the largest number of cases. Out of a total of 57 deaths 19 were in the City Proper where overcrowding and congestion are at their worst and where the barrack system still persists to a great extent and where a great deal of poor undernourished people still reside, and 27 in the East Dry River District, the conditions obtaining in which sub-district need no further elaboration from me.

Deaths from the Dysenteries, 1918-60

Period	Deaths	Death Rates per 100,000 Population
Year 1918	43	63
Yearly Averages:		
1919–23	38.2	58
1924–28	32	49
1929–33	14.8	21
1934–38	5.4	7
1939–43	7.4	8
1944–48	3	3
Average 1919–48	16.8	23
Year 1949	1	1
1950	2	2
1951	1	1
1952	3	3
1953	3	3
1954	2	2
1955	—	—
1956	3	2
1957	1	1
1958	2	2
1959	3	3
1960	1	1

Deaths from Diarrhoea and Enteritis—1918-60

Period	Deaths	Death Rates per 100,000 Population
Year 1918	193	284
Yearly Averages:		
1919–23	143.6	218
1924–28	72.8	112
1929–33	52.8	76
1934–38	40	52
1939–43	78.4	81
1944–48	46	44
Average 1918–48	76.16	103
Year 1949	30	30
1950	37	35
1951	42	39
1952	39	36
1953	58	51
1954	37	32
1955	45	38
1956	57	47
1957	35	29
1958	104	86
1959	69	69
1960	57	60

Diarrhoea and Enteritis—Deaths in Sub-districts, 1960

Sub-districts	Deaths
City Proper	19
St. Clair	1
East Dry River	27
Belmont	7
Woodbrook	1
St. James	2
Total	57

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

I have again this year, as I have had to do in every annual report that I have written, to record the melancholy fact that cardiac and vascular diseases continue to do the damage they are accustomed to do, and that there is no sign of any diminution of the heavy toll of mortality that they are exacting. Whilst it is true that insofar as this year is concerned there has been a diminution in the number of deaths attributable to these diseases, 260 as against 299 in 1959, yet the slow steady unrelenting increase each year persists with no sign of abatement, and the position is the same in all civilized countries of the world ; compilers of vital statistics in every part of the civilized world continue to record the fact that with each succeeding year more and more victims are being claimed by cardiac and vascular diseases and that they continue to occupy pride of place in the list of causes of death, and that this is particularly the case in the big and busy cities where stresses and strains and the pace of modern life are at their greatest.

It would appear that the price that has to be paid for better personal and environmental hygiene, for comparative freedom from dangerous and other infectious diseases, for an improved standard of living and for increasing longevity, is the increasing vulnerability of the delicate tissues of the heart and blood vessels to the stresses and strains of modern life, to the complexity and pace of everyday life, and to the worry and anxiety associated with the many difficult and trying situations that arise nowadays in our private and public lives.

Limited and uncertain as our knowledge of the actual causes of these diseases happens to be, there are however a few facts that are definite and on which preventive measures can be based.

The toll of mortality is highest at the older age periods, 41 to 60 and over 60, when the delicate tissues of the heart and blood vessels are beginning to show signs of wear and tear and to feel the stresses and strains incidental to the complexities of modern life. Again a certain percentage of these cases is due to organic disease that is susceptible to the influence of preventive measures such as

those diseases of the heart and blood vessels that are due to chronic infections like syphilis and to the toxins associated with chronic diseases of the liver and kidney. The strict avoidance of those conditions and circumstances that lead to the possibility of acquiring the infection, and, if unfortunately acquired the adequate and effective treatment of syphilis in the early stages, would spare the delicate tissues of the heart and blood vessels and of the brain, nervous system, and sensory organs that are so vulnerable to these diseases and for which so little in the way of effective treatment can be done when once they have been attacked. The elimination of the well-known poisons of alcohol and other such drugs that cause and aggravate kidney and liver disease would certainly put off the day when the heart must feel the inevitable strain and suffer a breakdown.

It is clear, therefore, that in the present state of our knowledge not much in the way of specific measures can be applied to stem the tide of mortality attributable to these diseases. Much, however, can be achieved by a campaign of health education directed to the detection in their early stages of those systemic diseases that give rise eventually to heart disease, when much more can be done to diminish the harm done and to limit their evil effects ; to teaching the afflicted how to live within the limits of their damaged heart and blood vessels ; how to avoid the stresses and strains, the worry and anxiety of modern life and yet be able to undertake useful and productive work ; and this is of particular importance seeing that the greatest incidence of these diseases is, as I have indicated, to be found at the later age-periods of life when by reason of his knowledge, wisdom, and experience the victim is likely to be of the greatest value to the community.

During the year under report cardiac and vascular diseases claimed 260 victims, the largest number attributable to one single group of diseases. Examination of the table listed hereunder shows that the older age periods of 41-60 and over–60 bore the brunt of the attack with 62 and 178 deaths respectively and the fact clearly emerges that the older the tissue the more susceptible it becomes to these diseases. Of the forms of cardiac and vascular diseases that are responsible for the highest mortality it is again the same old picture that presents itself, viz., arteriosclerotic and degenerative heart disease is, par excellence, the greatest " killer ".

Deaths from Cardiac and Vascular Diseases in Age Groups, 1960

Forms	0–20 years	21–40 years	41–60 years	Over 60 years	Total
Rheumatic fever	1	1	—	—	2
Chronic Rheumatic heart disease	1	1	1	—	3
Arteriosclerotic and degenerative heart disease	—	11	39	104	154
Other diseases of the heart	1	2	8	37	48
Hypertension with heart disease	—	—	8	29	37
Hypertension without mention of heart ...	—	1	5	4	10
Diseases of arteries	—	—	1	4	5
Other diseases of circulatory system ...	—	1	—	—	1
Total	3	17	62	178	260

Cancer and Other Malignant Diseases

It cannot be stated with certainty that the incidence of cancer and other malignant diseases is showing any great increase and whatever increase is recorded may very well be due to greater appreciation of the severity of the disease with consequent more frequent and earlier resort to diagnosis and treatment, to greater accuracy in diagnosis, and to the fact that the proportion of citizens over 60 years of age whose tissues are more susceptible to cancer is getting greater and greater with each passing year. But there can be no doubt that cancer and other malignant diseases are not of uncommon occurrence in the City and that nothing that we know or can do at the moment gives rise to the hope that the toll of mortality exacted by these diseases will be diminished. The cause of these diseases still remains obscure, in spite of the large amount of research that has taken place and is taking place at the moment in all parts of the world, and as long as the cause of a disease is unknown it is difficult to determine fully what are the factors that operate in the production of the disease, just as it is almost impossible to prevent that disease from claiming the life of its victim.

Cancer and other malignant diseases are almost invariably fatal and the appearance of the disease in the human body amounts almost to a death sentence. Sooner or later death invariably closes the final scene and although the surgeon's knife or the application of X-rays or radium or more recently treatment with hormones or the heavy metals may be successful in retarding the progress of the disease, complete cure is hardly ever effected. The early detection of the disease and the early application of treatment may, however, be responsible for lengthening the life of the patient

by an appreciable number of years and it is the course of supreme wisdom not to permit any ulcer to remain unhealed or any suspicious lump to grow for any length of time without bearing in mind the possibility of cancer and without consulting a doctor with a view to establishing the diagnosis and undergoing treatment.

Seeing that the specific cause of cancer still remains obscure in spite of much research and experimentation, it is not possible to apply any preventive measures that can be considered effective, but a health education campaign directed to the education of the public as to the high mortality associated with this group of diseases, and to the urgent necessity to treat every small lump or indolent ulcer with the respect it deserves, and to seek early treatment by surgery, X-rays or radium, would pay dividends and help to a greater understanding and appreciation of the toll of mortality that cancer and other malignant diseases are exacting from the community.

During the year under report 123 persons who resided within the limits of the City died of cancer and other malignant diseases, the largest number of victims since 1918 when it was first rendered possible, with the establishment of the Local Sanitary Authority in 1917, to compile accurate statistics that relate to the City alone.

The sites in the male that appear to be most vulnerable and which bear the brunt of the attack are the stomach and the prostate, and in the female the cervix and body of the uterus, the rectum and the intestines, and the stomach, in that order of frequency.

Cancer and other Malignant Diseases, 1960

Malignant Neoplasms	Deaths	
	Males	Females
Malignant neoplasm of buccal, cavity and pharynx	1	3
Malignant neoplasm of oesophagus	—	—
Malignant neoplasm of stomach	9	7
Malignant neoplasm of intestine, except rectum	2	7
Malignant neoplasm of rectum	—	8
Malignant neoplasm of larynx	3	—
Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	2	—
Malignant neoplasm of breast	—	10
Malignant neoplasm of cervix uteri	—	15
Malignant neoplasm of other and unspecified parts of uterus	—	7
Malignant neoplasm of prostate	5	—
Malignant neoplasm of skin	—	1
Malignant neoplasm of bone and connective tissue	1	—
Malignant neoplasm of all other and unspecified sites	13	20
Leukaemia and aleukaemia	2	1
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	3	2
Benign neoplasms and neoplasms of unspecified nature	—	1
TOTAL	41	82

Deaths from Cancer and other Malignant Diseases, 1918-1960

Period	Deaths	Rate per 100,000 Population
Yearly Averages :		
1918–22	44.4	67
1923–27	45.6	71
1928–32	44.6	65
1933–37	56.8	76
Average 1918–37	47.9	70
Yearly Average 1938–42	75.4	82
1943	88	86
1944	84	81
1945	80	75
1946	79	78
1947	75	78
1948	87	88
1949	91	90
1950	91	89
1951	103	94
1952	89	90
1953	113	102
1954	96	84
1955	104	89
1956	104	87
1957	102	84
1958	119	98
1959	113	114
1960	123	131

SANITARY ADMINISTRATION

Staff

During the year under report the fixed establishment of the Public Health Department comprised 210 employees of which 53 were members of the permanent pensionable staff and 157 members of the non-pensionable daily paid staff.

But at the end of the year, of the permanent pensionable staff of 53 only 43 were actually permanent employees ; 6 posts of sanitary inspector were vacant, 5 of the vacant posts being filled by men in a temporary capacity on a month-to-month basis, and 1 post remained unfilled, there being no suitable and qualified person to fill it even in an acting capacity ; the Inspector who was transferred to another department of the Corporation was re-instated, in the year under report, in his permanent post on the staff of the junior sanitary inspectors of the Department. The three vacant posts of health visitor could not again be filled because of the unavailability of qualified staff to fill them ; as a matter of fact ever since they were first established in 1951 these posts have not been filled because no suitable and qualified health visitors could be found to fill them ; no sooner does a nurse qualify as a health visitor than she is immediately absorbed into the service of the Health Department of Government who also are short of suitable and qualified staff. At the moment I write courses for health visitors and for sanitary inspectors are being held and it is confidently expected that we shall be in a position to recruit the necessary staff as soon as the candidates who are attending these courses qualify.

Of our full complement of 34 sanitary inspectors 6 vacancies could not be filled permanently because of the lack of suitable and qualified staff, but 5 of these posts were filled temporarily by retired inspectors who were recalled to duty and appointed on a month-to-month basis.

For the purpose of " the inspection of the district with a view to ascertain what nuisances exist calling for abatement " the City was again divided into 18 sanitary districts with a sanitary inspector in charge of each district. The number of premises in these sanitary districts varies depending upon the locality, average size of premises, type of building, &c., but they range from 1,211 in District No. 3 to 296 in District No. 7 for each inspector, who is required to do 25 house-to-house inspections each day and to inspect each and every premises in his district at the rate of at least once in every six weeks. It is realised that this is a duty imposed on the district sanitary inspector which is hard to carry out and it is proposed to increase the sanitary districts to 20 as soon as it is possible to recruit newly qualified inspectors, thus making it possible for the district sanitary inspector to inspect his district thoroughly and efficiently, and, of course, each and every premises in it at least once in every six weeks. This we consider to be the longest time that it is feasible to leave any individual premises uninspected in the Urban Sanitary District.

In his district the sanitary inspector is in full and complete charge of the public health services that are performed in the district, viz., anti-rat, anti-mosquito, anti-rabies, disinfection, &c., in addition to the basic essential work of inspecting the district and he has, as his duty, to control and supervise the various gangs who operate these services, and to consult with and report to the special inspector who is in charge of the whole unit as to the efficiency of the measures being undertaken and as to the ability, conduct, discipline and efficiency of the men who are working in his district. He is in fact responsible to the Chief Sanitary Inspector and eventually to the Medical Officer of Health for the health and sanitary state of his district.

Eight sanitary inspectors who, under normal circumstances, when the full complement of staff is available are usually Senior Grade A inspectors of some maturity and in good standing, with the knowledge and experience and the necessary personality and administrative ability to guide, direct, control and supervise a special Unit, were employed in the year under report in the execution of duties of a special nature. One such Inspector is now the Health Education Officer of the Department and plans, directs, supervises, and controls the work of the Health Education Unit and the personnel attached thereto as well as the other employees of the Department who may be taking part in a health education meeting in the evening. The Senior Sanitary Inspector (Outdoor) is in charge of the water sampling services, the Anti-Rabies Unit, and is also the Factories Inspector. He is in charge of water sampling and is also engaged in the inspection and control of the various catchment areas of the river and well sources of water supply ; he plans, supervises, directs and controls the Anti-Rabies Unit and has also to do with the registration and control of Factories, in addition to his routine duties of planning, directing, and supervising the work of a certain number of District Sanitary Inspectors. The Buildings Inspector is concerned with building plans of all kinds, and in addition he inspects, examines, and reports on layouts, leases, assignments and kindred matters. It is his duty to see to it that a building is erected in accordance with the approved plans especially that part of the building that is of special concern to the Department like doors, windows, ventilation openings, distance from the boundaries, and last but not least the sanitary conveniences. Another inspector, the Anti-Rat Inspector, is in charge of and plans, directs, supervises, and controls

the work of the Anti-Rat Unit. Three inspectors are assigned to food inspection work one of whom is the Senior Food Inspector who is the officer in charge of the Unit and who plans, directs, supervises and controls the work of the other two inspectors. One of these inspectors is stationed at the King's Wharf and Customs and it is his duty to inspect and examine food of all kinds but particularly tinned and perishable food on its arrival at the Port ; the other inspector is engaged in the inspection, examination, and registration of all food places and all food handlers throughout the length and breadth of the City, but in this work which is of an onerous nature he is actively assisted by the Senior Food Inspector who himself inspects and examines the food places preparatory to registration, leaving the registration of itinerant vendors to be the former's special assignment. In the district the Sanitary Inspector in charge is required to take and does normally take an active part in this work and actually assists the Food Inspector in the initial stages of inspection, in the service of notices, in the demonstration and abatement of nuisances in so far as food is concerned, preparatory to inspection for actual registration by the Senior Food Inspector.

The two overseers and the three sub-overseers of the Department are attached to and assist in the planning and execution of the work of the non-pensionable staff in addition to supervising and controlling them. Theirs is also the duty to instruct and train newcomers to the Department in the particular work they are called upon to perform before they are actually posted to do field work. One overseer and one sub-overseer are attached to the Anti-Rat Unit comprising one time keeper (for the whole of the non-pensionable staff), two checkers, 9 foremen, with 12 Grade A trappers and 26 Grade B trappers, and the Anti-Rabies Unit of one checker, 2 Grade A trappers, and one Grade B trapper.

One overseer and one sub-overseer are attached to the Anti-Mosquito Unit comprising 2 checkers, 1 foreman, 12 supervisors, together with 15 Grade A mosquito inspectors and 28 Grade B mosquito inspectors.

One sub-overseer is in charge of the Disinfection Unit and plans, directs, supervises and controls the operation of the Unit which comprises 2 spraymen and 4 other men engaged in disinfection work ; he also plans, directs, controls and supervises the work of the Public Conveniences Unit which now comprises 15 caretakers and which was transferred from the City Engineer's Department in the year 1943. The Unit employed by the Council for the emptying of cesspits, cesspools, and septic tanks, which was transferred to the Public Health Department in 1947 comprises 1 cooper, 1 caretaker and 2 men on the " deadman " at the Mucurapo Pumping Station ; 10 cleaners, 2 chauffeurs for driving the night soil trucks, 1 checker, 1 carpenter and mason, and 1 carpenter's mate on a part-time basis, all under the care, control and the direction of the Supervisor of the cleaning of Cesspits.

All told in the year under report the outdoor staff of the Department comprised 31 inspectors, 2 overseers, 3 sub-overseers, 1 supervisor of the cleaning of cesspits, and 157 miscellaneous workers on the non-pensionable staff, all under the care, direction, supervision and control of the Deputy Chief Sanitary Inspector (Outdoor) and the Chief Sanitary Inspector.

The indoor staff, i.e., employees who work full-time in the Public Health Department itself comprised in the year under report 1 senior sanitary inspector (indoor), 1 senior clerk, 1 first class clerk, 1 second class clerk, 1 scientific assistant, 3 female second class clerks and 1 messenger, all under the care, supervision and control of the Deputy Chief Sanitary Inspector (Indoor).

The work of the indoor staff, which, let it be stated, is equally important and just as onerous as the work of the outdoor staff, is concerned with correspondence of all kinds, messages, complaints, verbal and written reports ; the preparation and issuing of licences, certificates of registration, the distribution of food badges ; the preparation of contacts of cases, of infectious diseases and other applicants for inoculation and vaccination, the keeping and replenishing of equipment, supplies and records relative to vaccination and inoculation, the keeping of the various registers, books, minutes, &c., of the Department, the preparation of files and the care and preservation of the filing system; the sorting, coding and classifying of the various returns that reach the Department, the collection and compilation of vital statistics, the calculation of the various rates that are the concern of the Urban Sanitary District, the preparation of monthly, quarterly and annual reports ; and last but not least the checking and verifying of the paysheets of the non-pensionable staff, the preparation of the salary sheets of the pensionable staff, the keeping and bringing up-to-date of the various vote books of the Department, in fact all that appertains to the financial transactions and records of the Department. In addition the 2 sanitary inspectors on the indoor staff are liable to be called upon and usually are called upon to attend to urgent business of a sanitary nature anywhere in the City during the course of the day when the district sanitary inspectors are not available and particularly when the question of urgent nuisances that need immediate abatement crops up.

Inspection of Premises, &c., by Sanitary Inspectors, 1960

Average Monthly Number of Visits to Dwellings, Shops and other Premises 5,721

Inspection of Stores, Shops, &c.

	Average Monthly No. of Visits		*Average Monthly No. of Visits*
Provision and Meat Shops	134	Cinemas	6
Provision Stores	29	Sweet Drink Carts	14
Restaurants and Cookshops	53	Dairies and Cowsheds	18
Bakehouses	21	Stables	34
Bread Depots	7	Goat Pens	12
Cake and Ice Cream Shops	117	Aerated Water Factories	4
Fry Shops	10	Soap Factories	1
Hotels	9	Other Factories	70
Markets	4	Schools	22
Spirit Shops	33	Common Lodging Houses	5
Ice Cream Carts and Pails	47	Barber Shops	23
Cake Trays and Baskets	86	Dye Works	—
Provision Trays and Baskets	37	Laundries	16
Bread Carts and Baskets	9	Garages	21
Fresh Fish Trays	11	Tanneries	1
Oyster Vendors' Baskets	4	Public Urinals	5
Plantain Carts	—	Boats	4

Results of Notices and Verbal Directions, 1960

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime Washed	Oiled
Yard Pavements	71	76	—	—	—	—	—
Depressions in yards	—	—	—	—	80	—	—
Yards	—	—	3,302	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	126	279	2,845	—	—	—	—
Lavatories, sewer basins, flush tanks, urinals, bathrooms, &c.	237	203	1,107	—	—	—	—
Privies	159	547	—	—	—	296	—
Cesspits	76	108	1,082	—	—	—	25
Manure Heaps	—	—	—	—	281	—	—
Rat Holes	—	—	—	—	144	—	—
Tree Shade, Overgrowths of bush ...	—	—	—	—	964	—	—
Dustbins	669	77	441	—	—	—	—
Dustbin Covers	429	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	124	1,968	369	—	317	—
Aerated Water Factories	—	—	15	—	—	5	—
Bread Carts	—	—	—	3	—	—	—
Barracks, Common Lodging Houses ...	—	5	54	1	—	11	—
Garages, Kitchens	—	36	—	—	—	46	—
Cowsheds, Stables	—	14	161	—	—	21	—
Tanneries, Soap Factories, &c. ...	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses ...	7	—	—	—	—	—	—
Barber-Shops and other Workshops ...	—	—	45	18	—	—	—
Glass Cases and Covered Trays ...	62	161	—	192	—	—	—

Reports to Water and Sewerage Department—1960

Reports	*Total*
Leaks, defective taps, chokes, &c.	925

Anti-Rabies Measures—1960

Trapping, Etc. of Bats

Number of locations for roosts of Bats	14,224

Bats Caught

Artibeus lituratus palmarum (Trinidad Fruit Bat)	392
Artibeus jamaicensis trinitatis (Jamaica Fruit Bat)	275
Molossus m. major (Small Free-tailed Bat)	18
Carollia p. perspicillata (Common Leaf-nosed Bat)	6
Glossophaga longirostris major (Greater Long-tongued Bat)	16
Glossophaga s. soricina (Long-tongued Bat)	17
Centurio senex (Wrinkled-face Bat)	12
Desmodus r. rotundus (Common Vampire Bat)	1
Promops Centralis	1
Micronycterus m. Megalotis (Little Big-eared Bat)	1
	739

Bats Caught Outside City Limits

Cocorite Farm (Cocorite)—1 *Desmodus r. rotundus* (Common Vampire Bat)

Building Plans, &c.—1960

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

On Plans, &c., for reconstruction or reconditioning of buildings	676
On applications for leases of land in Woodbrook and Gonzales Place ...	79
On premises in which building operations were in progress	49
On application for certificates of completion of buildings	111

Cleaning of Privies, &c.—1960

Under the Public Health Ordinance, Ch. 12. No. 4. section 64 (1) (c), Cesspits, Cesspools and Septic Tanks were cleansed as follows :—

East Dry River	491
Belmont	515
St. James	232
Woodbrook	99
	1,337
Out District	—

Outstanding cesspits up to 31st December, 1960, numbered 205.
Average cost per cesspit emptied : $36.24.

Prosecutions—1960

Cases Determined by the Magistrate

Offences	*No. of Cases*	*Results Total Fines, &c.*
Failing to comply with nuisance notices	3	Fined $45.00
	1	Reprimanded
	8	Adjourned
	2	Dismissed
	1	Withdrawn
	15	

Summary

Cases	
3	Fined $45.00
1	Reprimanded
8	Adjourned
2	Dismissed
1	Withdrawn
15	

Leave of Absence—1960

	Vacation Leave No. of days	*Sick Leave No. of days*	*Local Leave No. of days*
Assing, C. C.—Sanitary Inspector	28	29	8
Aberdeen, K.—2nd Class Clerk	9	19½	9½
Andries, P.—Sanitary Inspector	—	3	—
Adams, R.—2nd Class Clerk	21	8	14
Antoine, A.—Supervisor	42	—	8
Bocaud, R.—Sanitary Inspector	91	5½	4
Boxill, E.—Dep. C.S.I. (Indoor)	64	1	11
Brathwaite, E.—Sanitary Inspector	84	—	4
Carpette, O.—Overseer	28	114	6
Callender, E.—Sanitary Inspector	—	2	1
Castello, G.—Sub-Overseer	28	—	6
Cameron, I.—Sanitary Inspector	24	8½	1
De Four, H.—Health Education Officer ...	167	—	—
Davidson, C.—Sanitary Inspector	84	14	6
Du Bois, C.—Sanitary Inspector	42	—	5
Edwards, R.—Sanitary Inspector	28	14	5
Forde, G.—Senior Sanitary Inspector (Indoor) ...	56	½	6
Forde, O. E.—Sanitary Inspector	—	—	—
Goodridge, C. F.—Messenger	21	4	4
Greenidge, St.A.—Sanitary Inspector... ...	28	11	2
Holdip, M.—Sanitary Inspector	—	—	—
Howard, J. R.—Sanitary Inspector	—	21	—
Hodge, L.—Sanitary Inspector	—	—	2
Hinkson, G.—Sanitary Inspector	106	2	6
Joseph, A.—Scientific Assistant	84	—	2
Khan, V. S.—Sanitary Inspector	42	2	14
Langton, E.—2nd Class Clerk	—	13	13
Marcano, G. R.—Medical Officer of Health ...	—	7	7
Marcial, R. S.—Sanitary Inspector	42	5½	4
Mitchell, K. I.—Sanitary Inspector	28	12	8
Nurse, G. W.—Sanitary Inspector	34	14	7
Neranter, A. K.—Sanitary Inspector ...	21	10	6
Parris, J. E.—Overseer	84	15	6
Philip, O.—Sanitary Inspector	28	14	14
Rivers, F.—Dep. C.S.I. (Outdoor)	—	7	7
Romain, A.—Chief Sanitary Inspector ...	—	—	10
Rameshwar, C. J.—Sanitary Inspector ...	21	13	1
Rowe, Desmond K.—2nd Class Clerk ...	—	3	2
Seon, F. E.—Senior Sanitary Inspector (Outdoor)	42	10	4
St. Cyr, H.—Sanitary Inspector	14	1	5
Sampson, A.—Sanitary Inspector	126	4	2
Sansavoir, F.—Sub-Overseer	21	—	—
Samm, M.—Sub-Overseer	28	—	6
Turney, H.—Sanitary Inspector	42	2	5
Turner, K.—Sanitary Inspector	—	14	6
Wilson, A.—Senior Clerk	—	10	7

Study Leave

De Four, H.—Health Education Officer—188 days
Holdip, M.—Sanitary Inspector—283 days

Staff—Resignations, Study Leave, &c.

Study Leave

Grade "A" Sanitary Inspector, Mr. M. Holdip, resumed work on 16th October, 1960, after successfully pursuing a course in Health Education in the United Kingdom.

Obituary

Senior Sanitary Inspector, Mr. F. Seon, died on 30th November, 1960.

FINANCIAL

Revenue and Expenditure, 1958-1960

	1958	1959	1960
REVENUE	$ c.	$ c.	$ c.
Revenue collected by the Health Department ...	1,218 49	6,616 67	2,305 49
EXPENDITURE			
Salaries and Allowances	150,743 19	155,537 75	170,179 73
Superannuation Allowances	—	27,382 50	—
Contributions	—	879 00	91 00
4 cents per hour interim increase (Wages)	—	1,994 82	—
Arrears of Salary—Lee Report	—	9,975 75	—
Generator, Tape Recorder, &c.	—	1,787 31	—
Van—Health Education	—	3,344 90	—
Arrears of Increments on Salary due S.I., O. M. Philip for 1957	240 00	—	—
5 per cent. Bonus to Corporation Employees (Staff Public Health Department) for 1957 and 1958 ...	11,364 05	—	—
Difference on Arrears of Cost of Living Allowance from 1st January to 31st December, 1957 (N.P. Employees)	7,774 87	—	—
Aedes Eradication Campaign	23,683 88	—	—
Replacement of Jitney	4,315 28	—	—
Arrears of Cost of Living Allowance for 1956-1957 (Staff)	—	—	—
Arrears of Increments of Salaries to newly-appointed Employees (Staff)	—	—	—
Port-of-Spain X-ray Campaign	—	—	2,493 75
Increased Wages—20 cents per day, 1959—A. Pajotte	—	—	98 65
Increased Wages—40 cents per day, 1959—D. Ragoobar	—	—	124 10
Increased Wages—40 cents per day, 1959	—	—	18,885 01
Arrears of Pension to O. E. Forde and C. C. Assing for 1959-1960	—	—	2,000 00
Arrears of Salaries (Anomalies)—A. Romain and 4 others—1959-1960	—	—	4,132 00
Increased Wages—40 cents per day	—	—	15,147 21
Increased Wages—40 cents per day—P. Seecharan ...	—	—	5 60
Increased Wages—20 cents per day—A. Pajotte—1st January, 1960 to 19th October, 1960 ...	—	—	92 60
Arrears of Cost of Living Allowance—1960	—	—	830 52
Wages and Allowances	184,281 95	195,314 13	219,013 93
Maintenance, Materials, &c.	49,000 75	29,842 41	33,980 75
	$431,403 97	$426,058 55	$467,074 85
Disposal of Night Soil	11,659 60	9,017 62	10,253 48
Emptying Cesspits	*49,602 83	†50,998 43	‡48,456 71
	$492,666 40	$486,074 60	$525,785 04

* Emptying of Cesspits—amount recoverable from house owners $16,457.25 in 1958.

† Emptying of Cesspits—amount recoverable from house owners $15,663.75 in 1959.

‡ Emptying of Cesspits—amount recoverable from house owners $14,053.00 in 1960.

ACKNOWLEDGMENT

The work of the Public Health Department continues to increase every year with the increasing population of the City and with the need for more efficient, more extensive, and more varied public health services covering a wider field.

Due to a large extent to the greater health consciousness aroused by our health education programme the residents of the City are demanding and expecting better general and personal health, a higher standard of sanitation and environmental hygiene, and more readily available and prompt services, efficiently executed. Add to this the fact that we have for years now been desperately short of properly qualified and dependable technical staff, it is clear that were it not for the devotion to duty, and the loyalty, generally, of the staff, pensionable and non-pensionable, and to the conscientious day-to-day routine performed under the able guidance, direction, and leadership of the Chief Sanitary Inspector, Mr. A. Romain, Cert. R. San. I., and the Deputy Chief Sanitary Inspector (Indoor) Mr. E. Boxill, Cert. R. San. I., we certainly would not have been able to maintain our services at a satisfactory level and there would without doubt have been a deterioration of the public health.

I am convinced that the employees of the Public Health Department, taken as a whole, are sensible of the great responsibility that is theirs, that they have the welfare and prestige of the Department at heart, and that they have all spared no effort in the year under report to render a public service which can truly be considered the greatest of all services, i.e., that of maintaining and improving the health and sanitary state of the Urban Sanitary District, without which all the other services of the Corporation would certainly be a nullity.

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

Whilst deeply appreciative of their work, I am not unmindful of the disabilities they suffer as compared with the Sanitary Inspectors in the employ of the Central Government and I am to request once again the Local Authority to make haste to make available to the Sanitary Inspectors of the Corporation those amenities and facilities enjoyed by their confreres so that we may be able to have in our employ a capable and contented staff, to be able to attract Sanitary Inspectors of the highest calibre to the Department, and to be able to retain staff whom we have recruited and trained to be efficient practical inspectors, often at great expense.

During the year under review we lost by death Mr. F. E. Seon, which took place quite suddenly at the end of November, 1960, to be exact on the 30th November, 1960.

We regret his loss ; he was an able, honest, capable and conscientious worker who had risen to the rank of Senior Sanitary Inspector (Outdoor), gradually working his way up to the highest rungs of promotion in the Department, and gave promise of being an outstanding worker and administrator. The Department is poorer by his loss.