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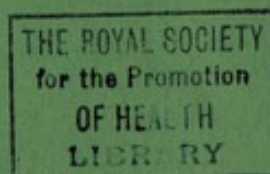
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ADMINISTRATION REPORT
OF THE
PUBLIC HEALTH DEPARTMENT OF THE
CITY OF PORT-OF-SPAIN
FOR THE YEAR
1959

BY

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



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PORT-OF-SPAIN CITY COUNCIL
PUBLIC HEALTH DEPARTMENT,
57/59 FREDERICK STREET,
PORT-OF-SPAIN



*With the Compliments of the
Medical Officer of Health*

ADMINISTRATION REPORT

OF THE

PUBLIC HEALTH DEPARTMENT OF THE

CITY OF PORT-OF-SPAIN

FOR THE YEAR

1959

DR. RODRIGUE MARCANO, M.D., F.R.C.P. (LOND.)
MEDICAL OFFICER IN CHARGE

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

1958-1959

THE CITY COUNCIL

HIS WORSHIP THE MAYOR, COUNCILLOR DENNIS MAHABIR, J.P.

Deputy Mayor :

COUNCILLOR J. HAMILTON HOLDER

Aldermen :

R. COOMBS

MRS. SYLVIA HUNTE

G. FRANCIS-LAU

S. P. MATHURA

J. MOORE

Councillors :

J. ABRAHAM

L. ROSTANT

J. FOSTER

C. ROACH

T. FRANKLYN

A. SABGA-ABOUD

K. FLETCHER

H. SCOTT

MISS A. HARPER

C. B. TYWANG

I. MERRITT

E. TAYLOR

V. WOOLFORD

**Administration Report of the Public Health Department of the City of
Port-of-Spain, Year 1959**

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PUBLIC HEALTH DEPARTMENT,

57/59, FREDERICK STREET,

PORT-OF-SPAIN,

TRINIDAD, W.I.

2nd November, 1960

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, 1959.

The year 1959 can be described, briefly, as a year which promised much and augured well for the future of the Urban Sanitary District and though much in the way of positive achievement in the year itself cannot be recorded, yet the events that occurred during 1959 were a prelude, I feel sure, to the major works of improvement that I have referred to so often as being absolutely necessary if the health and sanitary state of the City of Port-of-Spain are to improve to the point where one could truly state that it is the most healthy and the most sanitary in this part of the Caribbean and generally in the West Indies Federation. I refer to the fact that during the year under report surveys for the major project of sewerage 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. It is becoming increasingly clearer with each succeeding year that the conscience of the Local Sanitary Authority has been stirred, 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 Authority is being actively exhibited.

In the year itself under report it is possible to point to the Santa Barbara Ravine project almost at its point of completion, i.e. the termination of the paved ravine in the Dry River as the latter courses along the eastern side of the grounds of the General Hospital; the widening, deepening, and paving of the Harding Place watercourse at its junction with the Western Main Road; and the laying out, widening, paving and draining of the primitive earthen roads and the refuse filled tracks and traces that characterised the Cocorite-Harding Place area; the repairing and levelling of the footways as well as the filling in, 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 had been drawn up and the works detailed in that programme were being executed according to plan.

No deterioration in the general health of the City of Port-of-Spain occurred during the year 1959 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. The number of notifications of chicken pox received at the Department indicated that a mild outbreak of the disease was occurring, but mild epidemics of chicken pox do occur from time to time in the Urban Sanitary District especially in the congested and overcrowded sub-districts of Belmont and the East Dry River without having any adverse effect on the City as a whole.

In so far as vital statistics are concerned the most significant finding during the year under review was that the mid-year population of the City for 1958, i.e. the population as at the 30th June, 1958, which was estimated by the Government Statistical Department at 121,150 on the 3rd February, 1959, was found after a housing census designed to determine the number of dilapidated premises and the degree of overcrowding in the City and which was undertaken by and was conducted under the direction, supervision and control of, that Department, to be considerably less than was previously estimated using the formula that it has been customary to use during the inter-census period. The figure of 94,400 was eventually given us on the 22nd January, 1960, as being as near the correct figure for the mid-year population for 1958 as it was possible to arrive at, without actually counting as in a census, the total resident population of the City, and the figure for the mid-year population, i.e. the population as at 30th June, 1959, was estimated to be 99,350. Incidentally the actual counting of the population of the City and of the Territory as a whole took place in March of the current year, from 21st March to 2nd April, and also on census day which was the 7th April, 1960, but the facts collected by the census are still being

processed and the figures as to the total population, the population of Wards, &c. in so far as they relate to the City are not yet available. The figure of 99,350 being 4,950 greater than the estimated figure of 94,400 for 1958, and 21,800 less than the previously estimated figure of 121,150, has had the effect of increasing all rates that are normally calculated and published in these annual reports and the only rates that can and do give a true picture of morbidity or mortality are those that are not based on the population figure, such as the infant mortality figure, the still birth rate, and the maternal mortality rate all of which are lower than those of the previous year 1958. The number of deaths under one year totalled 158 as compared with 171 in the previous year, giving an infant mortality rate per 1,000 live births of 60.53 as against 61.97 in the year 1958; the number of still births registered was 57 giving a still birth rate of 21.70 per 1,000 live births as compared with 25.46 in the year 1958; and the maternal mortality rate worked out at 3.04 per 1,000 live births as compared with 3.85 in the year 1958. When the question of births and birth rates and deaths and death rates comes to be considered the only figures that can be compared, to any extent, one with the other, are the total number of births and deaths compiled from the returns that are sent to the Public Health Department and these worked out to be : total live births 2,627 as compared with 2,592 in 1958 and 2,735 in 1957 and total deaths 1,179 as compared with 1,147 in 1958 and 1,134 in 1957.

The returns showed that there was an increase in the number of notifiable infectious diseases reported, 317 as against 204 in 1958, due in the main to the outbreak of chicken pox to which I have previously referred in this report. With the exception of diphtheria and pneumonia all other notifiable infectious diseases showed a decrease. Deaths from the non-notifiable infectious diseases showed a decline especially those attributable to diarrhoea and enteritis which totalled 69 as compared with 104 in the year 1958. But deaths from cardiac and vascular diseases once again showed an increase, 299 deaths being certified in 1959 as compared with 278 in 1958; on the other hand deaths from cancer and other malignant diseases showed a slight decline, 113 cases having been certified as against 119 in the previous year 1958.

Taking the year 1959 as a whole there was good reason for optimism : 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 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 those long standing nuisances to which reference has been made from the time I assume 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 to borrow a phrase from His Worship the Mayor, "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 and the City Treasurer's Department which, 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 1958 first estimated at 121,150 by the Statistical Department of Government was later scaled down to 94,400 souls, and the mid-year population for 1959 estimated at 99,350, when a house-to-house census undertaken by that Department to estimate the degree of over-crowding of premises in the Municipalities indicated that the original figure of 121,150 was far in excess of what the actual 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 over-crowding 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.

The widening and paving of the Santa Barbara Ravine, which is a natural watercourse commencing in lands adjoining the Gonzales Quarry area outside the limits of the City, but which eventually courses through the City in the Belle Eau Road Area to join main drains that cross Norfolk Street on their way to the Dry River, continued during the year under report at the same slow pace that has characterised the improvement works to this highly insanitary ravine since its inception in 1958. Enough progress, however, was made during the year under report to indicate that this most important and greatly beneficial piece of work will almost certainly be completed during the current year. In my last report I referred to the improvement works which were being executed in the Cocorite-Harding Place Area. These works were completed in the first half of 1959 and this area is now a well laid out, efficiently drained, and quite attractive part of the St. James Sub-District of the City and, as is to be expected, dwelling houses have sprung up in that area as fast as the lots could be surveyed and marked out and the primitive earthen roads widened and paved. These works were the natural corollary to and stemmed from, the widening and paving of a primitive watercourse that had its origin outside the limits of the City, but which eventually entered the City overflowing its banks in times of flood and inundating the low lying lands through which it coursed with the inevitable creation of the many and varied nuisances that stagnant water is known to create. We are grateful to the Central Government for the improvement works to this earthen ravine which they undertook in keeping with the terms of the Imrie Report of 1952, as accepted by Government and the Council. I have already referred to the plans that are now actually taking shape for the execution of major improvement works in the Belmont and East Dry River Areas and one can feel with confidence that the problem of Shanty Town and John John and the La Peña Ravine which unfortunately still remains in *statu quo* at the time I write will be dealt with in 1961.

SANITARY CIRCUMSTANCES

Water

The position in so far as water supply of 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 putting into circulation of the water from the two King George V Park wells which yield between them a total of about a million and a half gallons per day. There had been a certain amount of delay in utilising the water from these wells due to the lack of the necessary pumping apparatus but at the time I write the pumps have arrived and have been installed, and the added volume represents a most welcome addition to the daily supply which is already greatly taxed by the increasing demands of the residents of the City who have learnt to appreciate to the full the value of an adequate supply of water and who are not slow to make their complaints heard whenever and wherever a shortage exists. But I am in the happy position to be able to state that the Joint Water Committee—a body comprising Central Government and City Council representatives—meet regularly with the assistance of the technical officers and Government's consulting engineers, and plans to improve the water supply both in quantity and quality and particularly to eliminate the unsatisfactory river sources, with special emphasis on the Maraval Water Supply, are actually under way. In spite of setbacks 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 could be made available to the City, progress is being made and the general picture is one of expectant optimism. At the moment I write a well has been sunk in the Maraval River Catchment Area, in the Saddle Road Val de Oro triangle, and it is stated that the quality and quantity of water tapped give rise to the buoyant hope that enough water is likely to be won by sinking wells or making boreholes in the area, water could be pumped into the Maraval Reservoir and so facilitate the abandonment of the Maraval River as a source of supply to the City. It is expected that about the middle of 1961 this could be done and the whole area—Haleland Park, the Perseverance and Moka Estates, the lands adjoining the Morne Coco Stream, an important tributary of the Maraval River—could then be freed from the restrictions that now obtain and the various private enterprises that now own valuable building lands in the Maraval Catchment Area could be given the "all clear" to proceed to make use of these lands for building and other purposes as they may desire. 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

reports viz. that all 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 supply to the City their catchment areas were, so to speak, virgin soil and the vegetation covering them was primitive, but because of the fact that it is only comparatively recently that it has been possible to protect them from pollution and then only from the nuisance arising from dwellings and business places—*vide* the McKilligin report December 1939—a gradual urbanisation of these areas has taken place and where dwelling houses and business places have not been erected, agricultural plots have been established and improvised shacks have sprung up, and horses, mules, donkeys and other domestic animals have been permitted to graze without let or hindrance on these lands. In these circumstances it is clear that the pollution of the various tributaries of the river sources as well as the river sources themselves cannot possibly be avoided and that each and every one of these sources of supply must inevitably be subjected to a good deal of treatment before the water can be permitted to enter the distribution mains. The water is therefore filtered and chlorinated and the amount of chlorine that has to be added is comparatively high, being as much as 3 parts per million in the case of the Maraval River supply, but even with this amount of chlorine, the residual chlorine immediately after the water leaves the Reservoir is never higher than .75 parts per million and by the time that the consumer's tap is reached, the residual chlorine has actually been completely used up. In addition flooding of these river sources is not uncommon and often without warning flood water reaches the reservoirs rendering them incapable of being used for the better part of a day or more. The story is quite different when it comes to the well sources. The water here, coming as it normally does from deep water-bearing strata, is of a comparatively high initial purity and needs hardly any treatment at all, the addition of the small amount of chlorine that is usually done being in the nature of a safeguard to protect against possible pollution in the mains of the distribution system. In some cases the chemical, chlorine is added at source; in others the water is pumped into reservoirs where it is chlorinated or into mains where it mixes with water that is already highly chlorinated. The yield of these well sources is fairly constant and it is only in the driest of dry seasons that there is any detectable loss of volume. Care must, however, be exercised in the sinking of these wells, and private firms, particularly, should not be permitted to sink wells within the limits of the City unless great care is exercised in the location of these wells to avoid tapping water from underground streams that were at one time surface rivers that traversed the Urban Sanitary District and so capable of being easily polluted, and also to prevent one well from being in the "cone of depression" of another well and so exerting an adverse influence on the volume of the adjoining well.

BACTERIOLOGICAL EXAMINATION OF WATER SUPPLY, 1959

| WHERE DERIVED | RESULTS OF EXAMINATION | | | | |
|--|------------------------|-------|--|---|--|
| | No. of Samples taken | Safe | Unsatisfactory (Presumptive B. Coli present) | Not safe without further treatment (Non-faecal B. Coli present) | Not safe without further treatment (faecal type B. Coli present) |
| * Cocorite Wells | 84 | 77 | 7 | — | — |
| Docksite Wells (untreated) | 99 | 72 | 27 | — | — |
| † St. Clair Pumping Station | 43 | 42 | 1 | — | — |
| ‡ St. Clair Well (untreated) | — | — | — | — | — |
| ‡ St. Clair Well (treated) | 44 | 44 | — | — | — |
| Wharf Well No. 3 (untreated) | 47 | 28 | 19 | — | — |
| † Maraval Reservoir | 43 | 36 | 6 | — | 1 |
| § Cascade Reservoir | 81 | 81 | — | — | — |
| § St. Ann's Reservoir | 165 | 149 | 14 | — | 2 |
| Knaggs' Hill Reservoir | 35 | 33 | 2 | — | — |
| Queen's Park Savannah Wells (untreated) | 131 | 127 | 4 | — | — |
| King George V Park Wells (untreated) | 84 | 78 | 6 | — | — |
| Laventille Reservoir | 39 | 38 | 1 | — | — |
| Pieton Reservoir | 45 | 21 | 24 | — | — |
| Port-of-Spain General Hospital (Tap) | 33 | 25 | 8 | — | — |
| 143, Charlotte Street | 54 | 31 | 22 | — | 1 |
| 133, Henry Street (Tap) | 49 | 27 | 21 | — | 1 |
| † Saddle Road, La Seiva (Tap) | 43 | 43 | — | — | — |
| Masson Hospital (Tap) | 43 | 43 | — | — | — |
| Microbiological Institute (Tap) | 44 | 38 | 5 | — | 1 |
| Sanitary Laundry (Tap) | 47 | 42 | 5 | — | — |
| Furness Withy & Co. (Tap) | 115 | 98 | 15 | — | 2 |
| St. James (Taps) | 20 | 18 | 2 | — | — |
| Woodbrook (Taps) | 31 | 29 | 2 | — | — |
| City Proper (Taps) | 53 | 40 | 10 | — | 3 |
| East Dry River (Taps) | 33 | 33 | — | — | — |
| Belmont (Taps) | 29 | 29 | — | — | — |
| St. Clair (Taps) | 40 | 32 | 6 | — | 2 |
| WELLS ON PRIVATE PROPERTY | | | | | |
| Electric Ice Co., 3A, Ariapita Avenue | 48 | 46 | 1 | — | 1 |
| Canning & Co., 60-68, Richmond Street | 90 | 88 | 2 | — | — |
| Queen's Park Hotel | 3 | — | 3 | — | — |
| | 1,715 | 1,488 | 213 | — | 14 |

Standard of purity : B. Coli absent in 100 c.c.

* Chlorinated, not filtered.

† Filtered after chlorination.

‡ Chlorinated before distribution.

§ Filtered before chlorination.

|| Filtered before chloramination.

CHEMICAL EXAMINATION OF WATER
Samples examined by Government Chemist, 1959

| WHERE DERIVED | No. of Samples Examined | No. of Samples found safe |
|--|-------------------------|---------------------------|
| Pictou Reservoir | 35 | 35 |
| Maraval Reservoir | 11 | 11 |
| Cascade Reservoir | 12 | 12 |
| St. Ann's Reservoir | 12 | 12 |
| Cocorite Pumping Station | 13 | 13 |
| Cocorite Pumping Station (for salinity) | 222 | 222 |
| Docksite Wells | 15 | 15 |
| King George V Park Wells | 20 | 20 |
| Queen's Park Savannah Wells | 28 | 28 |
| St. Clair Well | 12 | 12 |
| Wharf Well | 12 | 12 |
| | 392 | 392 |

Drainage and Sewerage

A fair amount of activity under this particular heading can be recorded in the year under report. Main watercourses that arise in areas outside the City and course through the City on their way to the Sea have always been a source of great concern to the Public Health Department because of the flood waters that heavy rainstorms produce and the various nuisances in their beds and along their banks which arise from the stagnation of water in the dry season, due to the indiscriminate dumping of refuse into these reservoirs by residents who live in their vicinity, and because of the depositing of dead dogs, cats and poultry into them by all and sundry.

Many years ago, to be exact in the year 1949, it was represented to the des Forges-Imrie Commission that these watercourses, arising as they do outside the limits of the City, should be widened where necessary and paved by the Central Government after which the City would undertake the responsibility of maintaining them in efficient working condition. This was agreed to and from that time in the budget for extraordinary works to be undertaken by the Central Government a certain sum of money is allocated each year to this work, the Council indicating the order of priority in so far as the various watercourses are concerned. So far the Harding Place watercourse has been dealt with, the work having been completed in the early part of the year under report, and the Santa Barbara Ravine project to which I have referred earlier in this report is well on the way to completion. It is expected that the La Peña Ravine in the eastern limits of the City which is a cause of serious flooding with consequent obstruction to traffic in the Toll Gate, St. Joseph Road and adjoining South Quay area and which is normally a source of nuisance to residents of Clifton Hill, Plaisance Place and John John will, with the relaying out of the John John Area that is due to take place early in the year 1961, be widened, paved and diverted to the Sea.

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. I refer to the works which have been executed in the Cocorite-Harding Place area and along Queen's Park East and Charlotte Street to the latter's junction with the Belmont Circular Road. At the moment that I write this report the western side of Charlotte Street from Queen's Park East to Keate Street is receiving the attention of the City Engineer's Department and soon a proper paved footway and efficiently paved street drains at the sides of the widened roadway will have been constructed.

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 under way to start sewerage 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 Sanitary 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 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 traces 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 to 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 the creation of nuisance therein. Householdors 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 efficacy 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 three 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 August from the 2nd August to 10th August, 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 these 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 consequence 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 lands 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 in so far 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 on the part of the elected representative. 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 depôts 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 difficulties 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 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 in so far 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 had been found necessary to post a Food Inspector on the Wharves to inspect food on arrival.

Sale of Foodstuffs Bye-laws

REGISTRATION OF SHOPS (1959)

| Provision, Meat, and Spirit Shops, Restaurants, Hotels, Refreshment | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| Parlours, Dairies | ... | ... | ... | ... | ... | 264 |
| Ground Provision and Fruit Shops | ... | ... | ... | ... | ... | 13 |
| Bakehouses | ... | ... | ... | ... | ... | 6 |
| Confectionery Shops | ... | ... | ... | ... | ... | — |
| Aerated Water Factories | ... | ... | ... | ... | ... | 1 |
| Other Factories | ... | ... | ... | ... | ... | 6 |
| Total 1959 | | | | | | 290 |
| Total 1958 | | | | | | 312 |

REGISTRATION OF VENDORS (1959)

| | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| Bread and Cakes | ... | ... | ... | ... | ... | 6 |
| Confectionery | ... | ... | ... | ... | ... | 31 |
| Cooked Food including Fries, Souse, &c. | ... | ... | ... | ... | ... | 51 |
| Ice Cream and Palets | ... | ... | ... | ... | ... | 21 |
| Sweet Drinks | ... | ... | ... | ... | ... | 7 |
| Vegetables, Greens, Fruits | ... | ... | ... | ... | ... | 91 |
| Miscellaneous | ... | ... | ... | ... | ... | 80 |
| Total 1959 | | | | | | 287 |
| Total 1958 | | | | | | 374 |

| | | | | |
|--|-----|-----|-----|------------|
| Number of Badges issued to Itinerant Vendors | ... | ... | 287 | (359—1958) |
| Number of Oyster Vendors Licensed under Sale of Oysters Bye-laws | 3 | | | (3—1958) |

Sale of Milk Bye-laws

DAIRIES AND MILK SHOPS (1959)

| | <i>Cowshed Licences Issued</i> | | | | | | |
|--|--------------------------------|-----|-----|-----|-----|-----|---|
| City proper | ... | ... | ... | ... | ... | ... | — |
| East Dry River (Unsewered) | ... | ... | ... | ... | ... | ... | — |
| Belmont (Unsewered) | ... | ... | ... | ... | ... | ... | — |
| Woodbrook (Sewered, but premises not all connected with the Sewerage System) | | | | | | | 2 |
| St. James (Unsewered) | ... | ... | ... | ... | ... | ... | 3 |
| | | | | | | | — |
| Total 1959 | ... | ... | ... | ... | ... | ... | 5 |
| | | | | | | | — |
| Total 1958 | ... | ... | ... | ... | ... | ... | 2 |
| | | | | | | | — |

DAIRYMEN'S LICENCES (1959)

| | |
|---|----|
| Dairymen's Licences issued to Cowkeepers and other purveyors of milk ... | 5 |
| Dairymen's Licences issued to Shops, Milk Bars and Refreshment Parlours ... | 22 |
| | — |
| Total 1959 | 27 |
| | — |
| Total 1958 | 40 |
| | — |

MILK VENDORS' LICENCES AND BADGES (1959)

| | <i>Milk Vendors' Licences</i> | | <i>Cow Tuberculin Tested</i> | <i>Badges</i> |
|----------------------|-------------------------------|----|------------------------------|---------------|
| Port-of-Spain | ... | 27 | 133 | 9 |
| Out-Districts | ... | 2 | — | 2 |
| | | — | — | — |
| Total 1959 | ... | 29 | 133 | 11 |
| | | — | — | — |
| Total 1958 | ... | 40 | 174 | 5 |
| | | — | — | — |

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED, 1959

| | | | |
|-------------------------------|--------|----------------------------------|---------|
| Baconpounds | 96 | Macaronipounds | 5 |
| Beef (frozen)pounds | 5,325 | Meat Productspounds | 6,415 |
| Beef (pickled)pounds | 400 | Meat (smoked)pounds | 800 |
| Biscuitspounds | 135 | Margarine (canned)pounds | 20 |
| Cake Mixpounds | 59 | Milk (Canned)pounds | 1,087 |
| Cerealspounds | 28 | Milk (Powdered)pounds | 70 |
| Cocoapounds | 7 | Nutspounds | 74 |
| Cheesepounds | 239 | Onionpounds | 8 |
| Cheese (canned)pounds | 27 | Peas (canned)pounds | 58 |
| Chicken (frozen)pounds | 135 | Peas (dried)pounds | 9,720 |
| Cornmealpounds | 700 | Pork (pickled)pounds | 2,400 |
| Fish (canned)pounds | 92 | Porkpounds | 75 |
| Fish (smoked)pounds | 123 | Potatoespounds | 619,610 |
| Fish (dried)pounds | 3,410 | Saltpounds | 21,280 |
| Fish (pickled)pounds | 200 | Sausage (canned)pounds | 325 |
| Fish (wet)pounds | 500 | Soup (canned)pounds | 846 |
| Flourpounds | 37,029 | Soup (dried)pounds | 8 |
| Fruit (canned)pounds | 400 | Vegetables (canned)pounds | 54 |
| Fruit (dried)pounds | 801 | Vegetable juicepounds | 18 |
| Fruit juicespounds | 52 | Yeastpounds | 1,250 |
| Garlicpounds | 3,886 | | |
| Ham (smoked)pounds | 353 | | |
| Ham (canned)pounds | 3,961 | | |

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—prebait 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 in so far 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 1958 and the same plan of campaign and the same method of procedure were followed and the same poisons as therein detailed were used, and strangely enough practically the same number of rats and mice were destroyed in 1959, 30,099 and 26,985 as compared with 31,396 and 24,240 in 1958. 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 the City 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 actively 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.

DESTRUCTION OF RATS AND MICE, 1959

| | | | | | | | |
|---------------------------|-----|-----|-----|-----|-----|-----|--------|
| Rats caught by trappers | ... | ... | ... | ... | ... | ... | 30,099 |
| Rats bought | ... | ... | ... | ... | ... | ... | — |
| Total | ... | ... | ... | ... | ... | ... | 30,099 |
| Mice caught and destroyed | ... | ... | ... | ... | ... | ... | 26,785 |

EXAMINATION OF RATS BY GOVERNMENT BACTERIOLOGIST, 1959

| | | | | | | |
|---------------------------------|-----|-----|-----|-----|-----|--------|
| Rats examined for plague | ... | ... | ... | ... | ... | 30,099 |
| Rats found infected with plague | ... | ... | ... | ... | ... | — |
| Immature rats not examined | ... | ... | ... | ... | ... | — |

SPECIES

| | | <i>Decumanus</i> | <i>Rattus</i> | Total |
|---------|-----|------------------|---------------|--------|
| Males | ... | 8,517 | 1,319 | 9,836 |
| Females | ... | 16,127 | 4,136 | 20,263 |
| Total | ... | 24,644 | 5,455 | 30,099 |

CHART A

This is a line graph showing the annual index of the Aedes I virus in the Port of Spain from 1942 to 1959. The Y-axis represents the annual index, ranging from 0 to 100. The X-axis represents the year. The graph shows a general upward trend, with a significant peak in 1959 reaching an index of approximately 95. There is a notable dip in 1948, where the index drops to around 40, followed by a sharp recovery in 1949.

The following table provides the annual index values for the Aedes I virus in the Port of Spain from 1942 to 1959:

| Year | Annual Index |
|------|--------------|
| 1942 | 10 |
| 1943 | 15 |
| 1944 | 20 |
| 1945 | 25 |
| 1946 | 30 |
| 1947 | 35 |
| 1948 | 40 |
| 1949 | 60 |
| 1950 | 70 |
| 1951 | 75 |
| 1952 | 80 |
| 1953 | 85 |
| 1954 | 90 |
| 1955 | 92 |
| 1956 | 94 |
| 1957 | 96 |
| 1958 | 98 |
| 1959 | 95 |

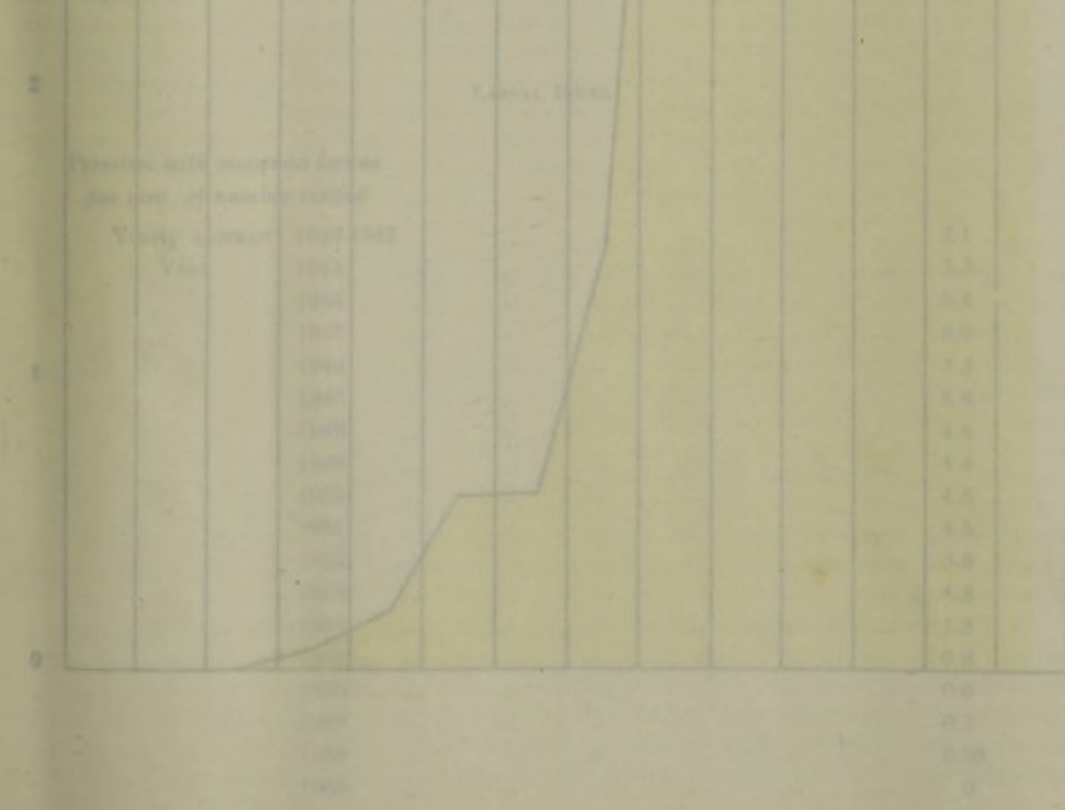
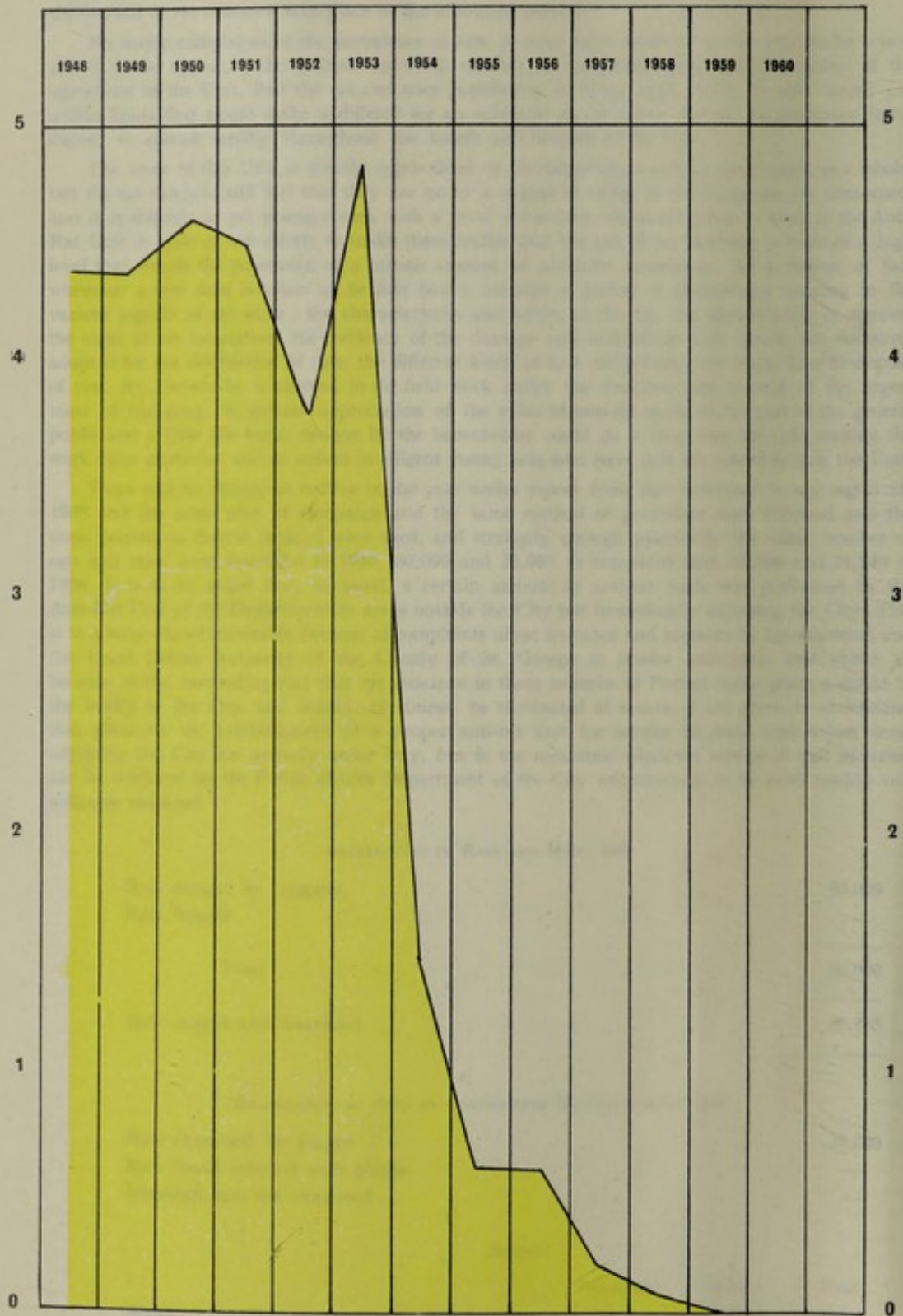


CHART A

Port-of-Spain

Aedes Larval Index 1948-1959



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 in so far as it means that stagnant water in the vicinity has either not been detected or if detected, has been allowed to remain un-oiled or un-eliminated. 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. 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 |

INSPECTION OF EAVES GUTTERS, ETC., 1959

| | |
|---|---------|
| Number of inspections of premises ... | 339,579 |
| Number of inspections of eaves gutters ... | 32,087 |
| Number of occasions found in good order ... | 30,841 |
| Number of occasions found defective ... | 1,246 |
| Number of occasions found containing water only ... | 1,246 |
| 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 ... | 14,075 |

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. In so far as the 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 façade 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. The barrack conditions that prevail in the Ajax Street building cannot be considered satisfactory; though designed for a temporary purpose only it has taken on the nature of a permanent structure with features that cause anxiety and concern to the Department.

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 me 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 watercourses 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 are earmarked. Certain it is that it is impossible to contemplate an Industrial Estate, a large Wholesale and perhaps 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.

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 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 indicated, 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.

During the year under report we were 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. We were able also to obtain the services of an artist, projectionist and chauffeur combined, admittedly a rare combination, but one in the flesh, that has been a distinct asset to the Unit and the Department.

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 Office, the Caribbean Commission, the British Council and the information Department of Government to whom we tender our heartfelt thanks. We have more films on order and at the time I write this report they have actually been received and have been made use of in the programme for the current year.

The routine work of the Health Education Unit which was detailed fully in my report for 1957 and to a lesser extent in my last annual report, 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 organised 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 on 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, 26th November, 1959 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) Save a Life Week 1959 organised by the St. John Ambulance Brigade and the Public Health Department ran from Monday, 15th June to Friday, 19th June, 1959. This Week was officially opened by the Deputy Mayor, Councillor J. Hamilton Holder and the advantages of a clean kitchen and of clean wholesome food were emphasised during the course of the Week. Each day of the Week the Health Education Unit of the Department organised a demonstration of the actual cooking and serving of meals and with the use of appropriate films the facts of clean food handling were detailed to an average attendance per day of 250 persons; (c) 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 Worship the Mayor with a motorcade on the morning of Monday, 29th June and ended on Saturday, 4th July. 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, the 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, 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. The Unit participated 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.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

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

| | | | | |
|---|--------|---------|---------|--------|
| Area of City—acres (pastures and open spaces included) ... | 1,793 | 2,500 | 2,550 | 2,550 |
| Estimated population (mean) ... | 61,396 | 120,650 | 121,150 | 99,350 |
| Density of population (persons per acre) ... | 34.2 | 47 | 47 | 39 |
| Total live births ... | 1,687 | 2,735 | 2,592 | 2,627 |
| Birth rate ... | 2,728 | 2,267 | 2,139 | 2,644 |
| Still births registered ... | 154 | 78 | 66 | 57 |
| *Still birth rate ... | 91.3 | 28.52 | 25.46 | 21.70 |
| Total deaths ... | 1,659 | 1,134 | 1,147 | 1,179 |
| Death rate ... | 2,683 | 940 | 946 | 1,187 |
| Natural increase of population ... | 28 | 1,601 | 1,445 | 1,448 |
| Death under one year ... | 287 | 127 | 171 | 158 |
| *Infant mortality rate ... | 170.12 | 46.44 | 61.97 | 60.53 |
| *Maternal mortality rate ... | — | 1.46 | 3.85 | 3.04 |
| Death Rates: | | | | |
| Notifiable infectious diseases ... | 621 | 80 | 62 | 82 |
| Pulmonary tuberculosis ... | 249 | 11 | 7 | 6 |
| Tuberculosis (other forms) ... | 26 | — | 2 | — |
| Enteric Fever ... | 125 | — | 2 | — |
| Pneumonia (all forms) ... | 197 | 68 | 49 | 70 |
| Bronchitis ... | 136 | 16 | 14 | 11 |
| Diphtheria ... | 2 | 1 | 2 | 2 |
| Malaria ... | 89 | — | — | — |
| Syphilis ... | 21 | 11 | 14 | 13 |
| Diarrhoea and enteritis ... | 191 | 29 | 49 | 69 |
| Influenza ... | 26 | 6 | 1 | 34 |
| Ankylostomiasis ... | 15 | — | — | — |
| Bright's disease and nephritis ... | 209 | 17 | 18 | 18 |
| Diseases of the heart and blood vessels ... | 265 | 264 | 229 | 301 |
| Diseases of the nervous system including cerebral haemorrhage ... | 170 | 149 | 136 | 158 |
| Cancer and other malignant diseases ... | 63 | 84 | 98 | 114 |

*Per 1,000 births.

Census population of City—April, 1946: 93,198.

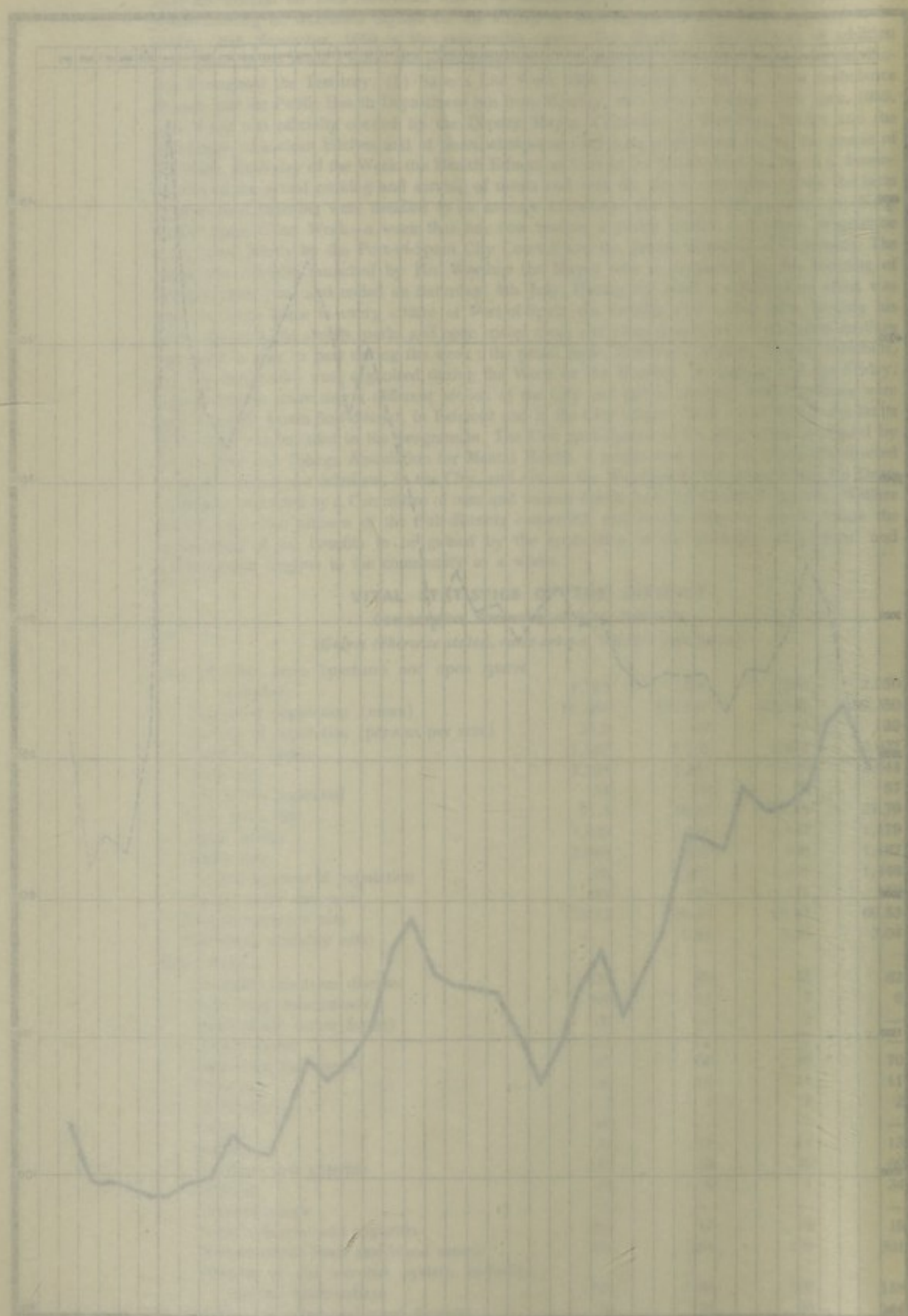
Colony's mean population: 817,050.

CHART B
Port-of-Spain
Birth Rates & Death Rates per 100,000 Population 1920-1959



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

CHART 8
 Death Rates per 100,000 Population 1950-1959



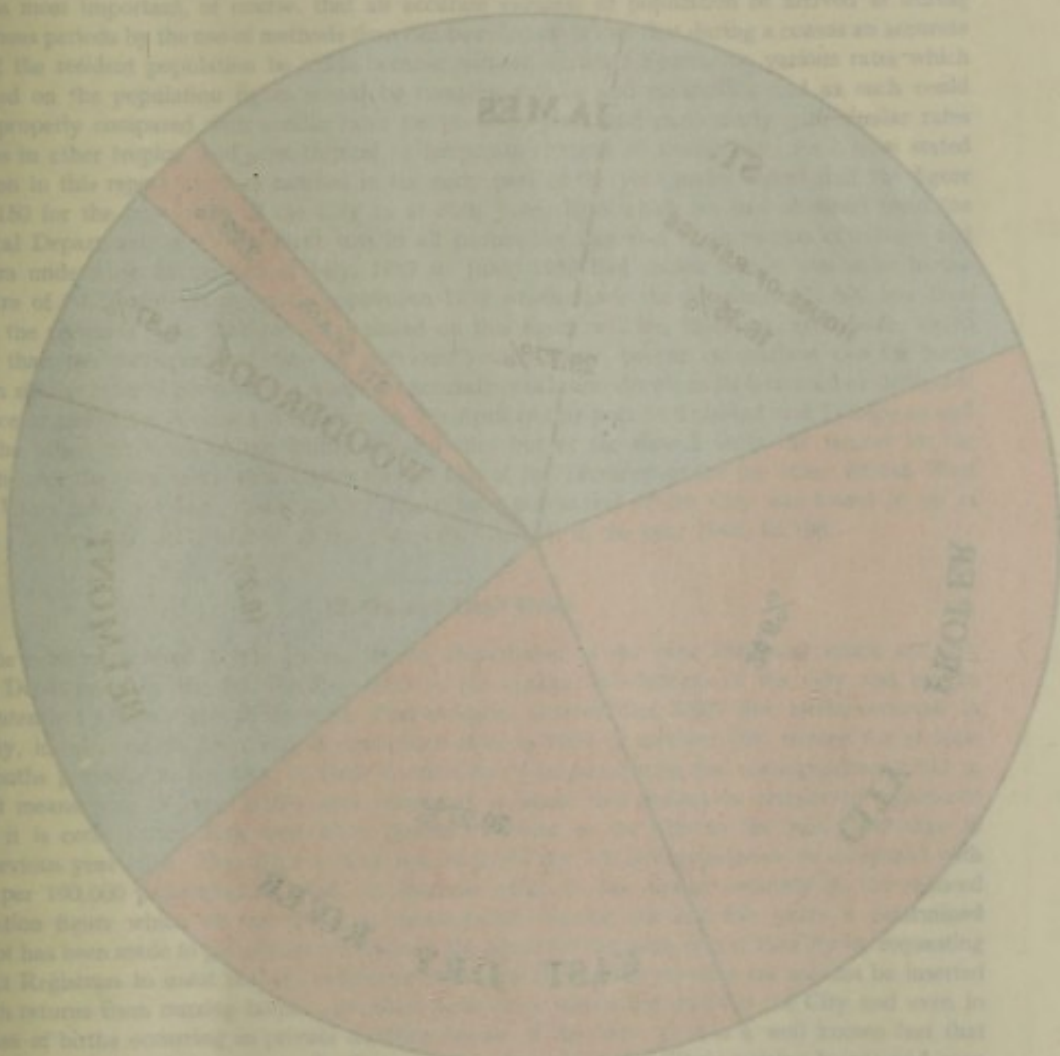
DEATH RATE

CHART 'C

Attributed and revised

Port-of-Spain

Percentage Distribution of Deaths in Sub-Districts of the City 1959



Deaths and Death Rates

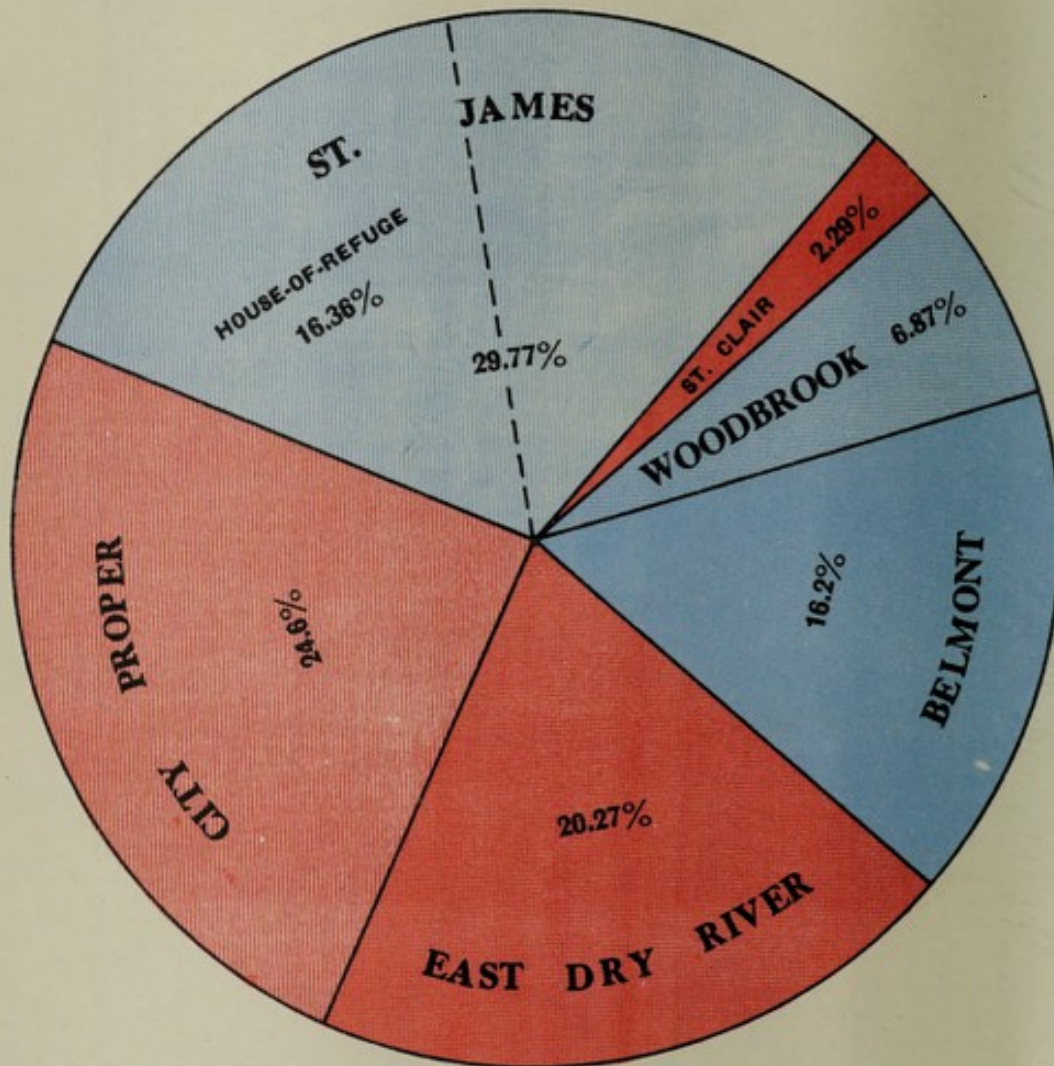
Death returns reveal that a total of 1,100 deaths occurred in the City during the year 1959. This represents an increase of 10% over the 1,000 deaths recorded in 1958. The increase is due to a number of factors, including a rise in the birth rate and a decrease in the death rate. The birth rate increased from 15.0 per 1,000 in 1958 to 16.0 per 1,000 in 1959. The death rate decreased from 10.0 per 1,000 in 1958 to 9.0 per 1,000 in 1959.

The increase in the birth rate is due to a number of factors, including a rise in the birth rate and a decrease in the death rate. The birth rate increased from 15.0 per 1,000 in 1958 to 16.0 per 1,000 in 1959. The death rate decreased from 10.0 per 1,000 in 1958 to 9.0 per 1,000 in 1959.

CHART C

Port-of-Spain

Percentage Distribution of Deaths
in Sub-Districts of the City 1959



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 had 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 42 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. As I have stated earlier on in this report we were notified in the early part of the year under report that the figure of 121,150 for the population of the City as at 30th June, 1958 which we had obtained from the Statistical Department of Government was in all probability incorrect, as a census of houses and occupiers undertaken in the period July, 1957 to June, 1958 had shown that it was safer to use the figure of 99,350 for the mid-year population 1959 which made the population 21,800 less than that of the previous year. The rates calculated on this figure will be, therefore, *ipso facto*, much greater than the corresponding rates of previous years and no proper comparison can be made between similar rates in previous years and no accurate conclusion drawn as to increased or decreased incidence or mortality. A census was taken on 7th April of this year in Trinidad and Tobago as well as in the other territories of the British West Indies but at the time I write the figures for the population of the City or for that matter for the rest of the Territory or for the other British West Indies Units have not been made public. 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.

Births and Birth Rates

The returns received at the Public Health Department in the year 1959 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 2,627 live births occurred in the City, in other words 2,627 infants were born alive in 1959 of mothers who resided for at least six months previous to the date of birth in the City. Compared with the corresponding 2,592 in 1958 it means that 35 more births were registered, a figure that cannot be considered significant unless it is certain that there were fewer mothers resident in the City in the year 1959 than in the previous year 1958. This gives a birth rate of 2,644 per 100,000 population as compared with 2,139 per 100,000 population in 1958, an increase which is due almost certainly 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 come to the General Hospital and to the City's nursing homes and even to private dwellings to give birth to their infants.

Deaths and Death Rates

Death returns showed that 1,179 deaths of residents, who lived during the six months previous to their death in the City occurred during the year 1959 as compared with 1,147 in the year 1958, an increase of 32 which again can hardly be considered of statistical significance. The death rate per 100,000 worked out at 1,187 as compared with 946 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.

Birth and Death Rate 1959

| BIRTHS, 1959 | | | | DEATHS, 1959 | | | |
|--------------|---------|------------|-----------------------------------|--------------|---------|------------|-----------------------------------|
| Males | Females | Both Sexes | Birth Rate per 100,000 population | Males | Females | Both Sexes | Death Rate per 100,000 population |
| 1,346 | 1,281 | 2,627 | 2,644 | 576 | 603 | 1,179 | 1,187 |

Deaths in Sub-Districts of the City, 1959

| SUB-DISTRICT | Mean Population | DEATHS | | | | Total Deaths | Rate per 100,000 population |
|--------------------|--------------------|---------------------|---------------------|---------------|--------------------|-------------------|-----------------------------------|
| | | PLACE OF OCCURRENCE | | | | Sub- Districts | |
| | | Home, &c. | General Hospital | Royal Gaol | House of Refuge | | |
| City Proper ... | 34,182 | 186 | 101 | 3 | — | 290 | 292 |
| St. Clair ... | 1,666 | 27 | — | — | — | 27 | 27 |
| East Dry River ... | 22,051 | 101 | 138 | — | — | 239 | 241 |
| Belmont ... | 17,178 | 84 | 107 | — | — | 191 | 192 |
| Woodbrook ... | 12,608 | 62 | 19 | — | — | 81 | 82 |
| St. James ... | 11,665 | 77 | 81 | — | 193 | 351 | 353 |
| Total ... | 99,350 | 537 | 446 | 3 | 193 | 1,179 | 1,187 |

Age Distribution of Deaths, 1959

| PERIOD | | | | Males | Females | Both Sexes | Percentage of Total Mortality at All Ages |
|-------------------|-----|-----|-----|-------|---------|------------|---|
| Under 1 year ... | ... | ... | ... | 84 | 74 | 158 | 13.40 |
| 1-5 years ... | ... | ... | ... | 24 | 15 | 39 | 3.31 |
| 6-10 do. ... | ... | ... | ... | 2 | 4 | 6 | 0.51 |
| 11-20 do. ... | ... | ... | ... | 13 | 8 | 21 | 1.78 |
| 21-30 do. ... | ... | ... | ... | 13 | 21 | 34 | 2.88 |
| 31-40 do. ... | ... | ... | ... | 25 | 20 | 45 | 3.82 |
| 41-50 do. ... | ... | ... | ... | 51 | 45 | 96 | 8.14 |
| 51-60 do. ... | ... | ... | ... | 105 | 80 | 185 | 15.69 |
| Over 60 years ... | ... | ... | ... | 259 | 336 | 595 | 50.47 |
| TOTAL ... | ... | ... | ... | 576 | 603 | 1,179 | |

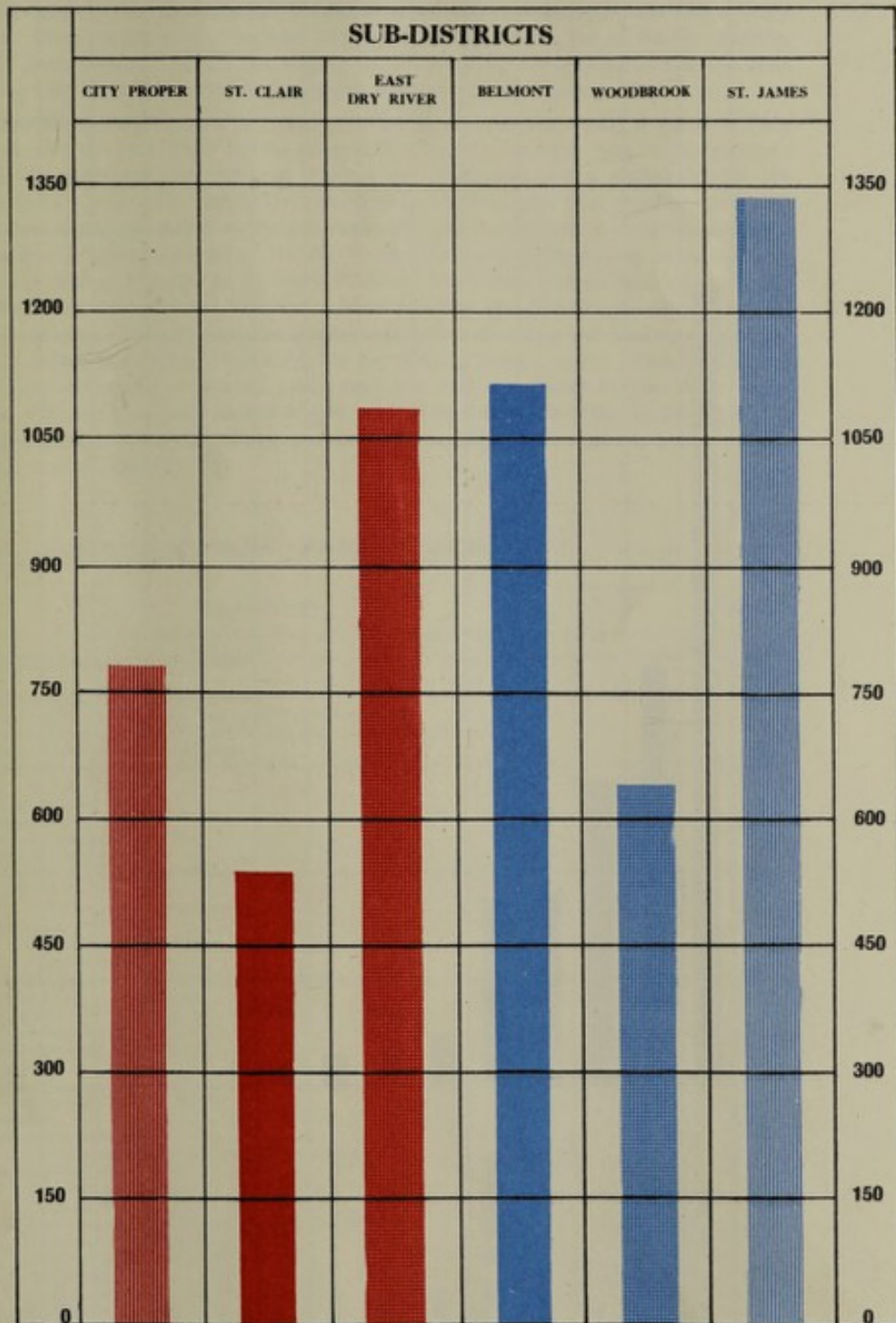
Comparison of Deaths at different Age Periods, 1928-59

| 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 | 51.88 |
| 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 |

CHART D

Port-of-Spain

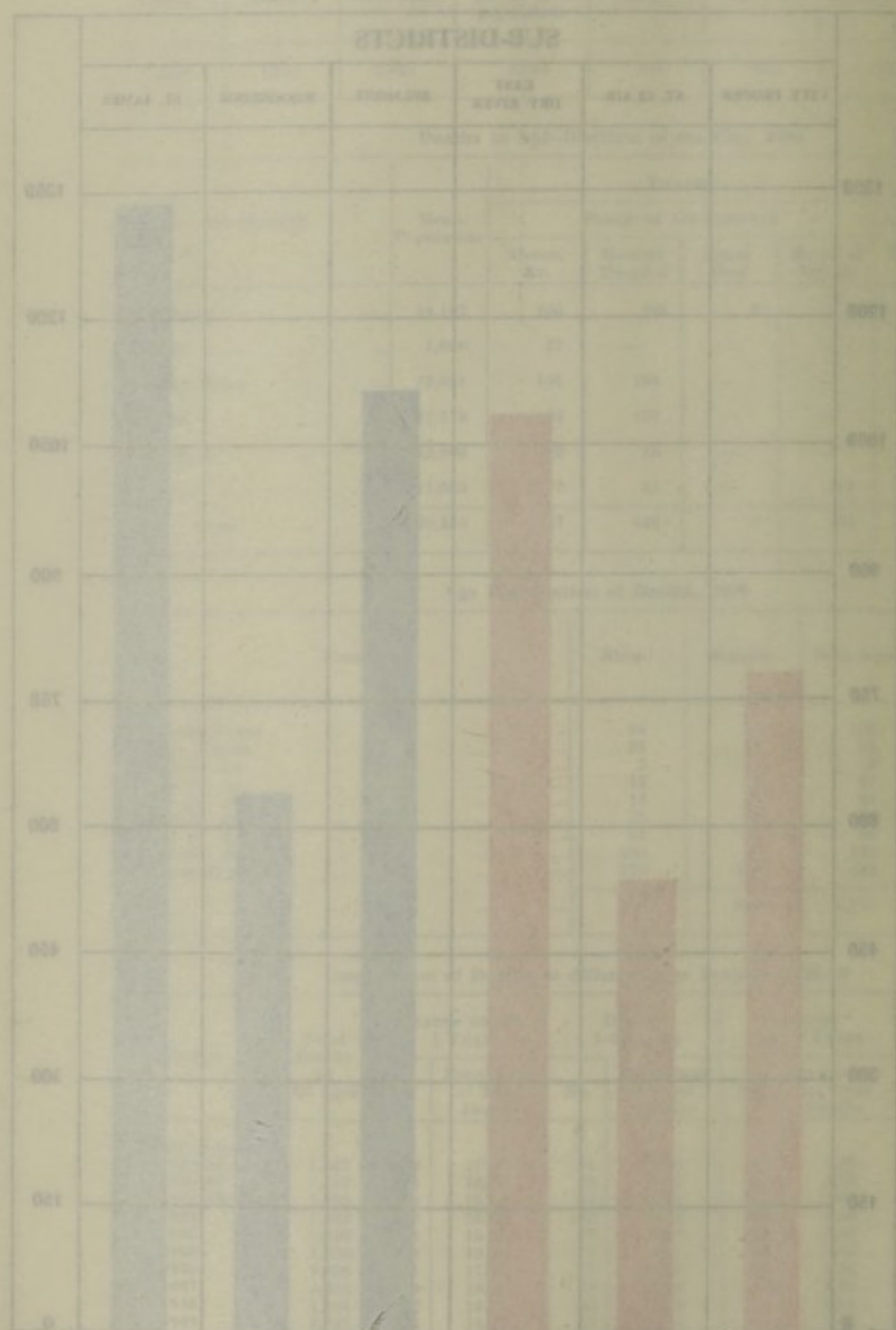
Sub-Districts Death Rate Per 100,000
Population of Sub-District—1959—



NOTE : Deaths at Seventh Day Adventist Clinic, at Park Nursing Home and at House of Refuge excluded from Sub-Districts of City Proper, St. Clair and St. James, respectively.

CHART D Port of Spain

Sub-Districts Death Rate Per 100,000
Population of Sub-District—1959



Note: Deaths at General Day Adventist Clinic at Port Kaituma and at House of Refuge excluded from Sub-District of St. James and St. James, respectively.

CHART E Poisonings

CAUSES OF DEATHS 1958

The following are the causes of death by poisoning in 1958. The total number of deaths by poisoning was 11. The causes of death by poisoning are listed in the following table. The number of deaths by poisoning is listed in the following table. The number of deaths by poisoning is listed in the following table.

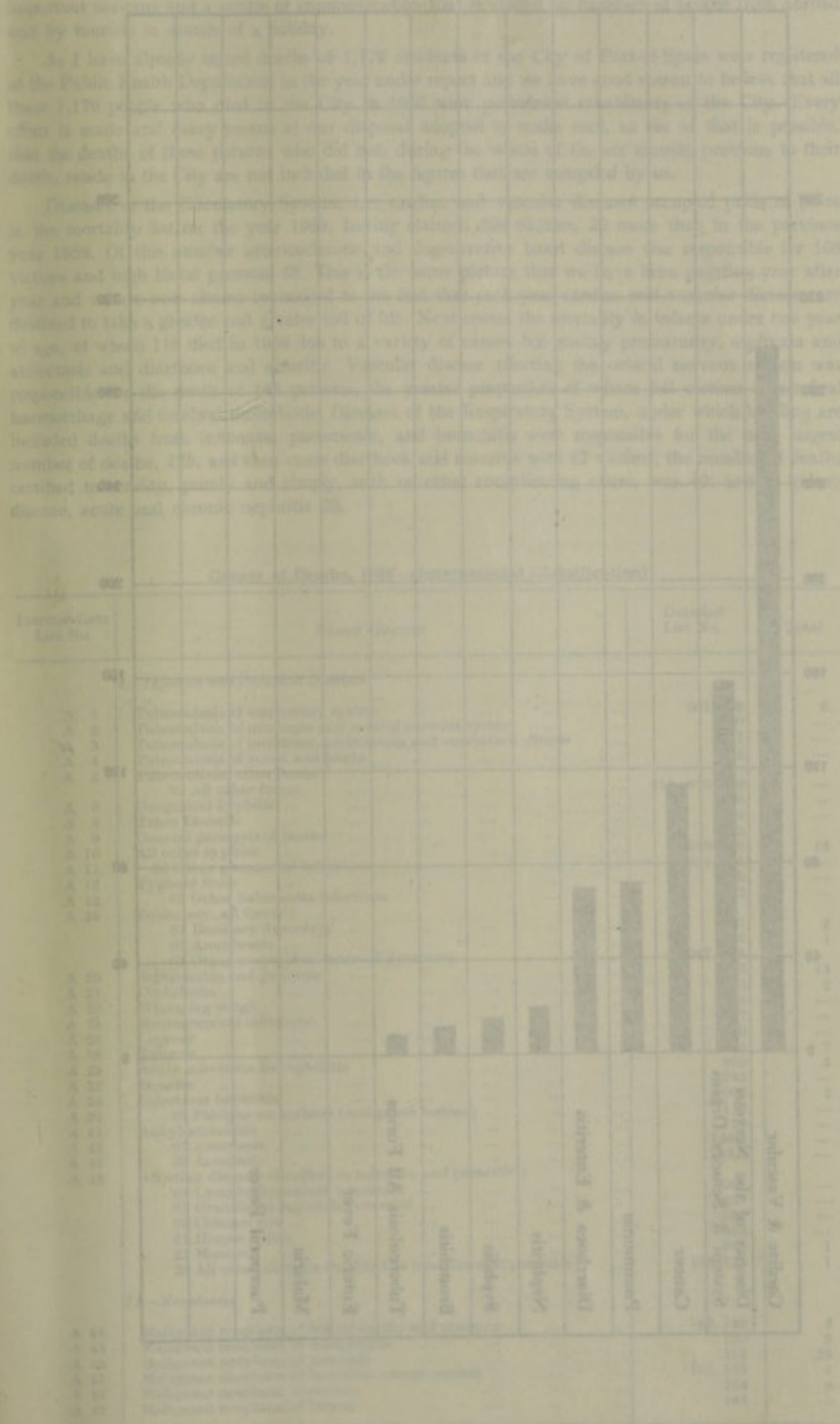
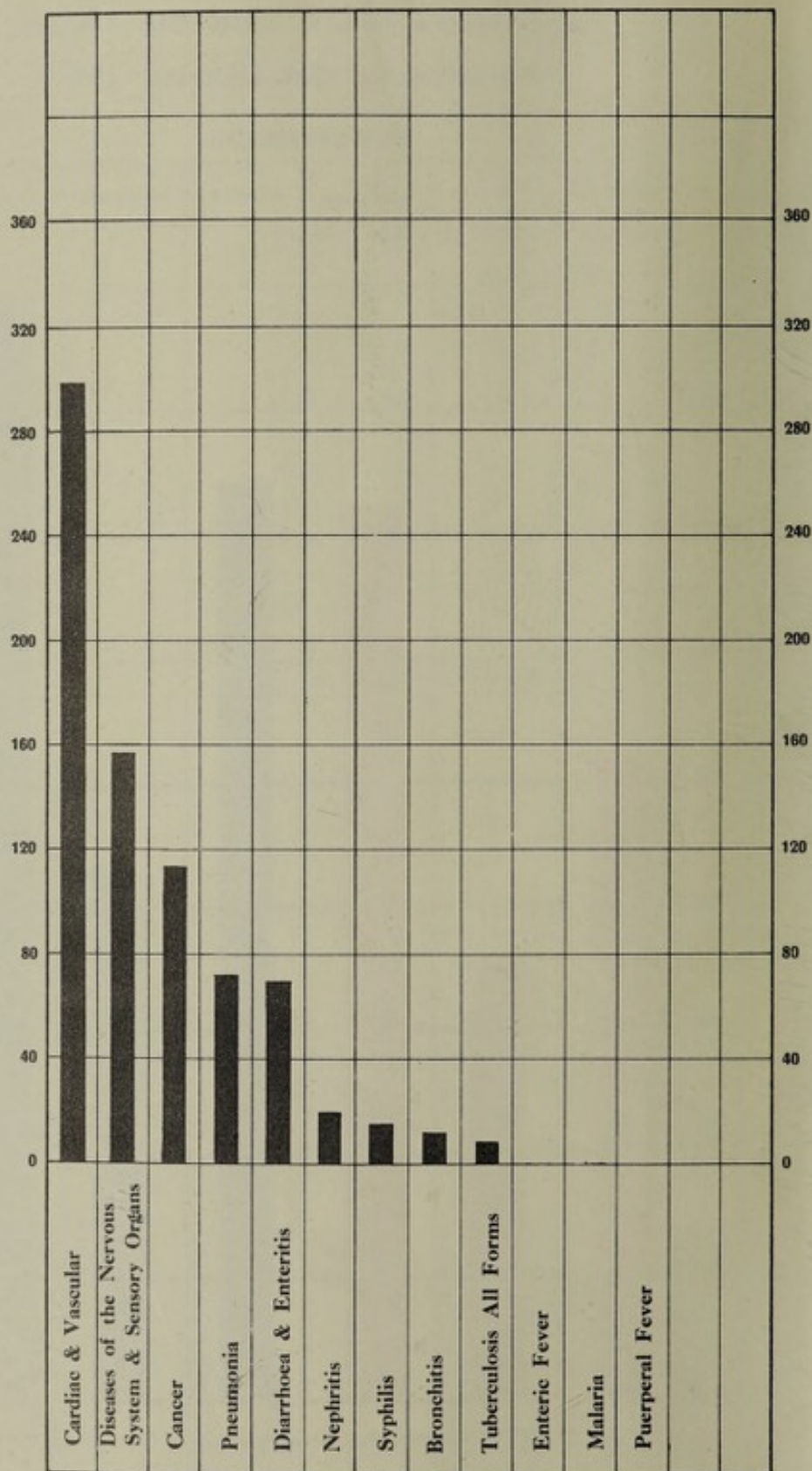


CHART E

Port-of-Spain

Principal Individual CAUSES OF DEATHS 1959



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 1,179 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 1,179 people who died in the City in 1959 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 1959, having claimed 298 victims, 20 more than in the previous year 1958. Of this number arteriosclerotic and degenerative heart disease was responsible for 168 victims and high blood pressure 55. 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 are destined to take a greater and greater toll of life. Next comes the mortality in infants under one year of age, of whom 118 died in 1959 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 145 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 influenza, pneumonia, and bronchitis were responsible for the next largest number of deaths, 125, and then came diarrhoea and enteritis with 67 victims; the number of deaths certified to senility, purely and simply, with no other complicating cause, was 40; and to kidney disease, acute and chronic nephritis 26.

Causes of Deaths, 1958—(International Classification)

| Intermediate List No. | CAUSE GROUPS | Detailed List No. | Total |
|-----------------------|--|-------------------|-------|
| | <i>I—Infective and Parasitic Diseases</i> | | |
| A 1 | Tuberculosis of respiratory system | 001-008 | 6 |
| 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 | 13 |
| A 11 | 02 Other gonococcal infections | 031-035 | — |
| A 12 | Typhoid fever | 040 | — |
| A 13 | 02 Other Salmonella infections | 042 | — |
| A 16 | Dysentery, all forms : 01 Bacillary dysentery | 045 | 2 |
| | 02 Amoebiasis | 046 | 1 |
| | 03 Other unspecified forms of dysentery | 047, 048 | — |
| A 20 | Septicaemia and pyaemia | 053 | 13 |
| A 21 | Diphtheria | 055 | 2 |
| A 22 | Whooping cough | 056 | — |
| A 23 | Meningococcal infections | 057 | — |
| A 25 | Leprosy | 060 | — |
| A 26 | Tetanus | 061 | 7 |
| A 29 | Acute infectious Encephalitis | 082 | 3 |
| A 32 | Measles | 085 | — |
| A 34 | Infectious hepatitis | 092 | 2 |
| A 37 | 03 Falciparum malaria (malignant tertian) | 112 | — |
| A 41 | Ankylostomiasis | 129 | — |
| 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 | 1 |
| | 25 All other diseases classified as infective and parasitic | 132-134 | 1 |
| | <i>II—Neoplasms</i> | | |
| A 44 | Malignant neoplasm of buccal cavity and pharynx | 140, 148 | 3 |
| A 45 | Malignant neoplasm of oesophagus | 150 | 3 |
| A 46 | Malignant neoplasm of stomach | 151 | 23 |
| A 47 | Malignant neoplasm of intestine, except rectum | 152, 153 | 8 |
| A 48 | Malignant neoplasm of rectum | 154 | 5 |
| A 49 | Malignant neoplasm of larynx | 161 | — |

Causes of Deaths, 1959—(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 | 3 |
| A 51 | Malignant neoplasm of breast | 170 | 13 |
| A 52 | Malignant neoplasm of cervix uteri | 171 | 10 |
| A 53 | Malignant neoplasm of other unspecified parts of uterus | 172-174 | 10 |
| A 54 | Malignant neoplasm of prostate | 177 | 1 |
| A 55 | Malignant neoplasm of skin | 190-191 | — |
| 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 | 24 |
| A 58 | Leukaemia and Aleukaemia | 204 | 6 |
| A 59 | Lymphosarcoma and other neoplasms of lymphatic system | 200-203 205 | 2 |
| A 60 | Benign neoplasms and neoplasms of unspecified nature | 210-239 | 1 |
| <i>III—Allergic, Endocrine System, Metabolic, and Nutritional Diseases</i> | | | |
| A 62 | Thyrotoxicosis with or without goitre | 252 | — |
| A 63 | Diabetes mellitus | 260 | 38 |
| A 64 | Avitaminosis and other deficiency states : | | |
| | 01 Beri Beri | 280 | — |
| | 02 Pellagra | 281 | 1 |
| | 04 Vitamin B deficiency, except beri beri and pellagra | 286, 2 | — |
| | 05 Other deficiency states | 283-286 | 6 |
| <i>IV—Diseases of the Blood and Blood-Forming Organs</i> | | | |
| A 65 | Anaemias : | | |
| | 01 Pernicious and other hyperchromic anaemias | 290 | 1 |
| | 03 Other specified and unspecified anaemias | 292, 293 | 4 |
| A 66 | Allergic disorders, all other endocrine, metabolic and blood diseases : | | |
| | 01 Asthma | 241 | 8 |
| | 02 All other allergic disorders, endocrine, metabolic and blood diseases | 253 | 3 |
| <i>V—Mental, Psychoneurotic and Personality Disorders</i> | | | |
| A 67 | Psychoses | 300-309 | — |
| A 68 | Psychoneuroses and disorders of personality | 310-324 326 | — |
| <i>VI—Diseases of the Nervous System and Sensory Organs</i> | | | |
| A 70 | Vascular lesions affecting central nervous system | 330-334 | 145 |
| A 71 | Nonmeningococcal meningitis | 340 | 5 |
| A 72 | Multiple sclerosis | 345 | 1 |
| A 73 | Epilepsy | 353 | 3 |
| A 77 | 02 Otitis media and mastoiditis | 391-393 | 1 |
| A 78 | 02 All other diseases of the nervous system and sense organs | 341-344 350-352 354-357 360-369 395-398 | 2 |
| <i>VII—Diseases of the Circulatory System</i> | | | |
| A 79 | Rheumatic fever | 400-402 | 1 |
| A 80 | Chronic rheumatic heart disease | 410-416 | 5 |
| A 81 | Arteriosclerotic and degenerative heart disease | 420-422 | 168 |
| A 82 | Other diseases of the heart | 430-434 | 52 |
| A 83 | Hypertension with heart disease | 440-443 | 41 |
| A 84 | Hypertension without mention of heart | 444-447 | 14 |
| A 85 | Diseases of arteries | 450-456 | 17 |
| A 86 | Other diseases of the circulatory system | 460-468 | 1 |
| <i>VIII—Diseases of the Respiratory System</i> | | | |
| A 87 | Acute upper respiratory infections | 470-475 | — |
| A 88 | Influenza | 480-483 | 34 |
| A 89 | Lobar pneumonia | 490 | 12 |
| A 90 | Broncho pneumonia | 491 | 37 |
| A 91 | Primary atypical, other, and unspecified pneumonia | 492, 493 | 21 |
| A 92 | Acute bronchitis | 500 | 6 |
| A 93 | Bronchitis, chronic and unqualified | 501, 502 | 5 |
| A 95 | Empyema and abscess of lung | 518, 521 | 1 |
| A 96 | Pleurisy | 519 | 2 |
| A 97 | All other respiratory diseases : | | |
| | 01 Pneumoconiosis | 523 | — |
| | 02 All other respiratory diseases | 511-517 520-522 524-527 | 7 |

Causes of Deaths, 1959—(International Classification)—Continued

| Intermediate List No. | CAUSE GROUPS | Detailed List No. | Total |
|---|--|---|-------|
| <i>IX—Diseases of the Digestive System</i> | | | |
| A 99 | Ulcer of stomach | 540 | 3 |
| A100 | Ulcer of duodenum | 541 | 1 |
| A101 | Gastritis and duodenitis | 543 | — |
| A102 | Appendicitis | 550-553 | 5 |
| A103 | Intestinal obstruction and hernia | 570 | 6 |
| A104 | Gastro-enteritis and colitis, except diarrhoea of the newborn : | | |
| | 01 Gastro-enteritis and colitis between 4 weeks and 2 years | 571.0 | 53 |
| | 02 Gastro-enteritis and colitis, ages 2 years and over... .. | 571.1 | 14 |
| | 03 Chronic Enteritis and ulcerative colitis | 572 | — |
| A105 | Cirrhosis of Liver | 581 | 12 |
| A106 | 01 Cholelithiasis | 584 | — |
| | 02 Cholecystitis without mention of calculi | 585 | — |
| A107 | Other diseases of digestive system | 536-539 542-544 545 573-580 582-583 586-587 | 9 |
| <i>X—Diseases of the Genito-Urinary System</i> | | | |
| A108 | Acute Nephritis | 590 | 2 |
| A109 | Chronic and other unspecified nephritis | 591-594 | 16 |
| A110 | Infections of kidneys | 600 | 8 |
| A111 | Calculi of urinary system | 602-604 | — |
| A112 | Hyperplasia of prostate | 610 | 8 |
| A114 | 02 Disorders of menstruation | 634 | 1 |
| A114 | 03 All other diseases of the genito-urinary system | 601-603 605-609 611, 612 614-617 622-623 635-637 | 7 |
| <i>XI—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium</i> | | | |
| A116 | 01 Puerperal eclampsia | 685 | — |
| | 02 All other toxæmias of pregnancy and the puerperium | 642, 652, 686 | 1 |
| A117 | Haemorrhage of pregnancy and childbirth : | | |
| | 01 Placenta prævia | 643 | — |
| | 02 Haemorrhage of pregnancy | 644, 670 | 1 |
| A118 | Abortion without mention of sepsis | 650 | 1 |
| A119 | Abortion with sepsis | 651 | 2 |
| A120 | All other complications of pregnancy and childbirth : | | |
| | 01 Ectopic pregnancy | 645 | 1 |
| | 03 Delivery complications | 673-675 | 1 |
| | 04 Other complications of pregnancy | 646, 648 649, 676 680, 683 | — |
| | 05 Delivery without complications | 660 | 1 |
| <i>XII—Diseases of the Skin and Cellular Tissues</i> | | | |
| A121 | Infections of skin and subcutaneous tissue | 690-698 | 1 |
| <i>XIII—Diseases of the Bones and Organs of Movement</i> | | | |
| A122 | Arthritis and spondylitis | 720-725 | 3 |
| 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 | 3 |
| | 03 All other diseases of musculoskeletal system | 731-736 738, 744 | — |
| <i>XIV—Congenital Malformations</i> | | | |
| A127 | Spina bifida and meningocele | 751 | — |
| A128 | Congenital malformation of Circulatory System | 754 | 6 |
| A129 | All other congenital malformations | 750-752 753, 755 759 | 3 |
| <i>XV—Certain Diseases of Early Infancy</i> | | | |
| A130 | Birth Injuries | 760-761 | 2 |
| A131 | Post-natal asphyxia and atelectasis | 762 | 15 |
| A132 | Infections of the newborn : | | |
| | 01 Diarrhoea of newborn (under 4 weeks) | 764 | 2 |
| | 03 Sepsis of newborn | 767, 768 | 3 |
| | 04 Other infections of newborn | 763-766 | — |
| A133 | Haemolytic diseases of newborn | 770 | 1 |
| A134 | All other defined diseases of early infancy : | | |
| | 02 Haemorrhagic diseases of newborn | 771 | 2 |
| | 03 Nutritional maladjustment | 772 | 5 |
| A135 | Ill-defined diseases peculiar to early infancy and immaturity unqualified | 773, 776 | 45 |

Causes of Deaths, 1958—(International Classification)—Continued

| Intermediate List No. | CAUSE GROUPS | Detailed List No. | Total |
|-----------------------|--|-------------------|-------|
| | <i>XVI—Symptoms, Senility and Ill-defined Conditions</i> | | |
| A136 | Senility without mention of psychosis | 794 | 40 |
| A137 | 01 Pyrexia of unknown origin | 788.8 | 1 |
| | 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 | 1 |
| | 08 Symptoms referable to abdomen and lower gastro-intestinal system... .. | 785 | 1 |
| | 09 System referable to genito-urinary system | 786 | 1 |
| | 14 Uraemia unqualified | 792 | 7 |
| | 15 Ill-defined and unknown causes of mortality | 759 | 25 |
| | 16 Other general symptoms | 788.1-788.9 | 1 |
| | <i>"E" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)</i> | | |
| AE138 | Motor Vehicles Accident | E819-E825 | 8 |
| AE139 | Other Transport Accidents | — | 8 |
| AE140 | Accidental poisoning | E870-E985 | 1 |
| AE141 | Accidental falls | E900-E904 | 3 |
| AE142 | Accident caused by machinery | E912 | — |
| AE146 | Accidental drowning... .. | E929 | 1 |
| AE147 | 02 Foreign body entering other orifice | E928 | — |
| | 05 All other accidental causes... .. | E910-E911 | 2 |
| AE148 | Suicide and self-inflicted injury | E970-E979 | 3 |
| AE149 | Homicide and Judicial Execution | E980-E985 | 9 |
| | <i>"N" XVII—Code Alternative Classification of Accidents, Poisonings and Violence (Nature of Injury)</i> | | |
| AN138 | Fracture of skull | N800-N804 | 1 |
| AN139 | Fracture of spine and trunk | N805-N809 | 2 |
| AN140 | Fracture of limbs | N810-N829 | 4 |
| AN143 | Head injury (excluding fracture) | N850-N856 | 2 |
| 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-N936 | — |
| AN148 | Burns | N940-N949 | 3 |
| AN149 | Effects of poisons | N960-N979 | — |
| AN150 | All other and unspecified effects of external causes | N950-N959 | 3 |
| | | N980-N999 | — |
| | GRAND TOTAL | | 1,179 |

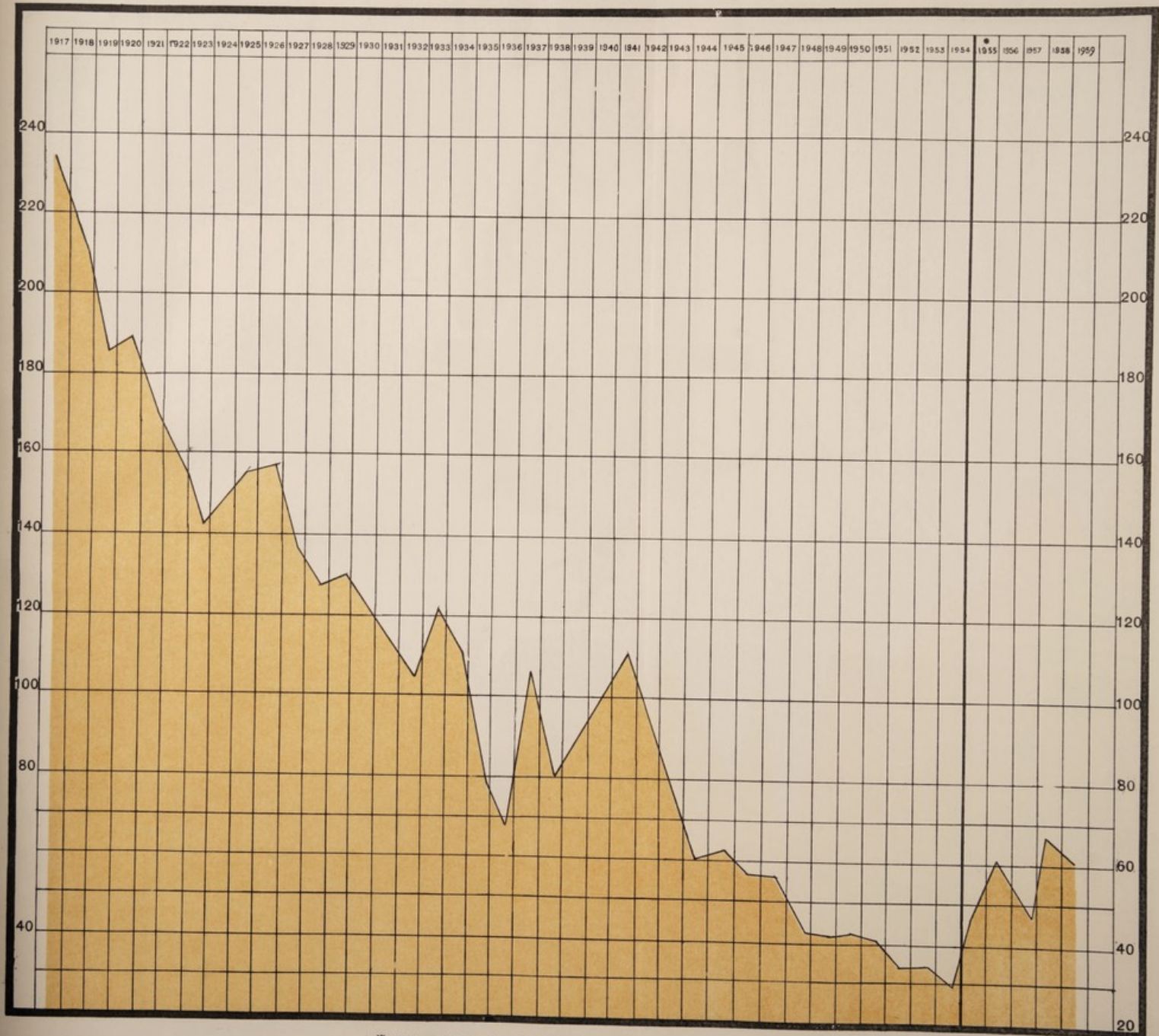
Infant Mortality

A special section in these reports has always been devoted to infant mortality and rightly so, because of the importance of infant mortality in the general economy and because its importance goes far beyond the magnitude of the figure itself. Infant mortality is an index of the general progress of a community and reflects a number of influences that are at work in that community. It is to a certain extent a measure of the general level of education obtaining and particularly of the health education of mothers and fathers, it gives some idea of the ready availability and relative efficiency of the ante-natal, intra-natal, and post-natal services, of the degree of skill and care that the midwifery services can provide. Is there a sufficiency of midwives and obstetricians? Are their services skilled and prompt? It is also an index of the kind of housing accommodation that is available and the level of sanitation and environmental hygiene that obtains in the community. All these factors play a decisive role in infant mortality and a low infant mortality rate is invariably associated with an intelligent, prosperous and thriving community, adequately and efficiently provided with skilled health, sanitary and social services. The importance of the infant mortality rate is only exceeded by the ease with which the figure is arrived at, depending as it does on the number of deaths of infants under one year and the total live births recorded, both of which figures present no great difficulty to obtain and in regard to which a high degree of accuracy can be guaranteed.

The number of infants under one year who died in the year under report totalled 158 which with the 2,627 live births recorded for the year gives an infant mortality figure of 60.53 per 1,000 live births which is lower than the corresponding figures for 1958, 171 deaths and 2,592 live births with an infant mortality rate of 61.97. 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.

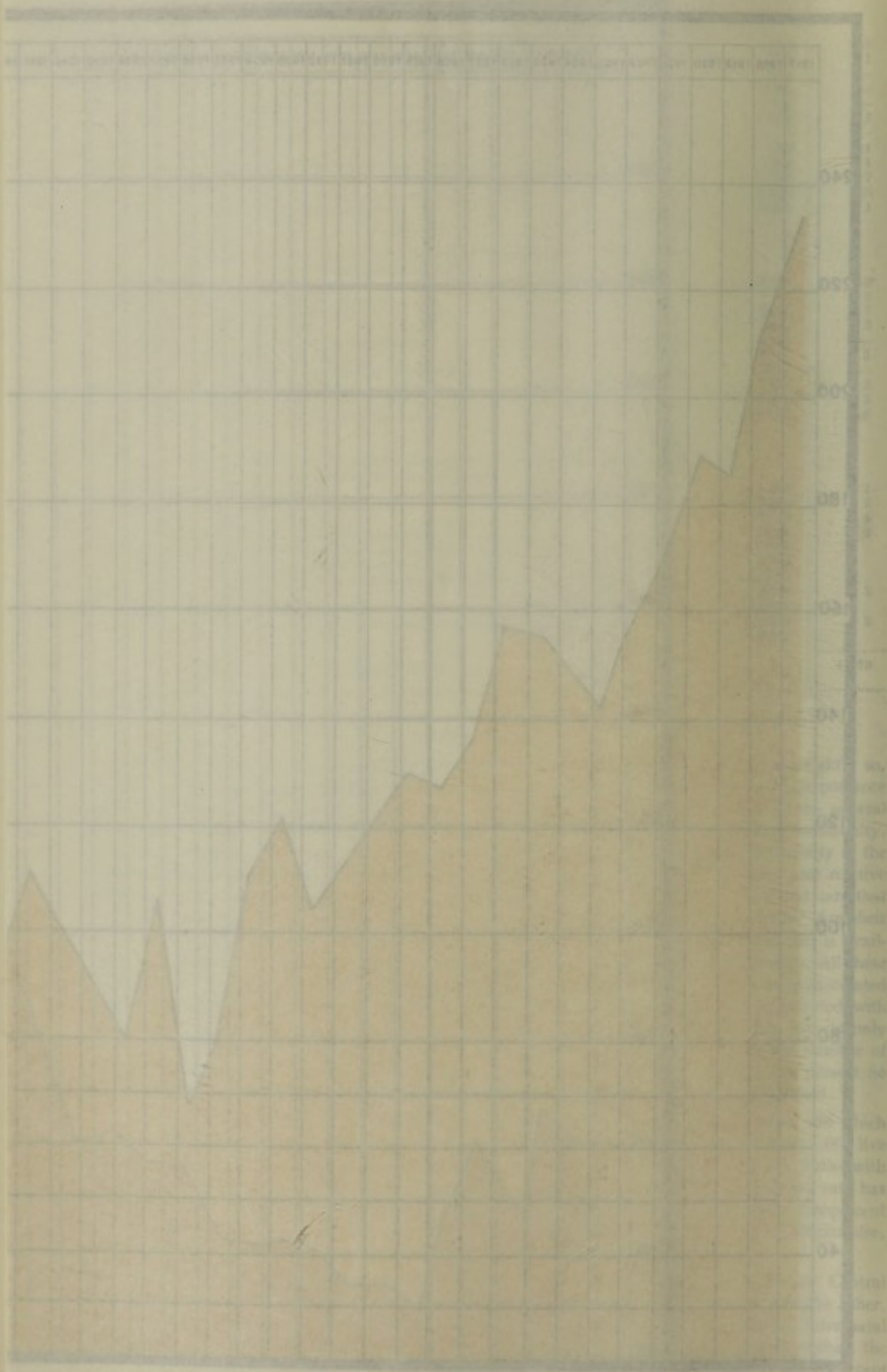
Child welfare work is committed, in the main, to the care of two recognised bodies: Central Government and the Child Welfare League, which work in close co-operation one with the other. It may be stated in general terms that the purely technical part of the work: ante-natal, intra-natal and post-natal, 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.

CHART F
Port-of-Spain
Infant Mortality Rates per 100,000 Live Births 1917-1959



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

CHART F
Port of Spain
Infant Mortality Rates per 100,000



* Adjusted Rate (Standardized)

PORT-OF-SPAIN CITY COUNCIL

PUBLIC HEALTH DEPARTMENT

Report on the Health of the Urban Sanitary District of Port-of-Spain

SECRETARY, LOCAL AUTHORITY.

The Report on the Health of Port-of-Spain and a summary of the work of the Sanitary Staff for the month of November, 1960, are submitted for the information of the Local Authority.

I—VITAL STATISTICS

Mid-year Population of Port-of-Spain, 1959 99,350
 Distribution: City Proper, 34,182; St. Clair, 1,666; East Dry River, 22,051; Belmont, 17,178; Woodbrook, 12,608; St. James 11,665.

Month of November, 1960

| | Males | Females | Total | Rate per 100,000 pop. | Rate per 1,000 Births |
|----------------------------|-------|---------|-------|-----------------------|-----------------------|
| Births | 124 | 116 | 240 | 2939 | — |
| Deaths | 47 | 35 | 82 | 1004 | — |
| Deaths under 1 year | 8 | 0 | 8 | — | 33.33 |
| Still Births | 1 | 0 | 1 | — | 4.16 |

Comparison, 1956-1960

| OCTOBER | BIRTHS | | DEATHS | | INFANT MORTALITY | | STILL BIRTHS | |
|-------------|--------|------|--------|------|------------------|-------|--------------|-------|
| | Total | Rate | Total | Rate | Total | Rate | Total | Rate |
| 1956 | 221 | 2304 | 82 | 855 | 10 | 45.25 | 6 | 27.15 |
| 1957 | 230 | 2332 | 81 | 821 | 7 | 30.30 | 7 | 30.30 |
| 1958 | 250 | 2531 | 87 | 877 | 5 | 44.00 | 5 | 20.00 |
| 1959 | 223 | 2239 | 90 | 904 | 12 | 53.81 | 5 | 22.42 |
| 1960 | 240 | 2939 | 82 | 1004 | 8 | 33.33 | 1 | 4.16 |

Distribution of Deaths

| For November | 1956 | 1957 | 1958 | 1959 | 1960 | For November | 1956 | 1957 | 1958 | 1959 | 1960 |
|---------------------|------|------|------|------|------|------------------|------|------|------|------|------|
| PUBLIC INSTITUTIONS | | | | | | CITY AND SUBURBS | | | | | |
| General Hospital: | | | | | | | | | | | |
| From City Proper | 6 | 6 | 11 | 8 | 9 | City Proper | 15 | 12 | 7 | 23 | 16 |
| " St. Clair ... | — | 1 | — | — | — | St. Clair | 2 | 1 | — | 4 | 1 |
| " E. Dry River | 5 | 6 | 16 | 10 | 10 | East Dry River | 6 | 4 | 6 | 6 | 10 |
| " Belmont ... | 7 | 7 | 7 | 10 | 3 | Belmont | 7 | 14 | 10 | 8 | 3 |
| " Woodbrook | 4 | 2 | 2 | 3 | 4 | Woodbrook | 4 | — | 2 | 3 | 4 |
| " St. James ... | 5 | 7 | 4 | 2 | 7 | St. James | 8 | 5 | 5 | 2 | 7 |
| Total Gen. Hosp. | 27 | 29 | 40 | 33 | 33 | Totals | 42 | 31 | 30 | 39 | 41 |
| Royal Gaol ... | — | 1 | — | — | — | | | | | | |
| House of Refuge | 13 | 12 | 17 | 11 | 8 | | | | | | |
| Totals | 40 | 45 | 57 | 44 | 41 | | | | | | |

II—Causes of Death (International Classification)

| Inter-mediate List No. | Detailed (1948) List No. | Cause Groups | Total | Inter-mediate List No. | Detailed (1948) List No. | Cause Groups | Total |
|------------------------|--------------------------|---|-------|------------------------|--------------------------|---|-------|
| A1 | 001, 008 | I—Infective and Parasitic Diseases | | A44 | 140-148 | II—Neoplasms | |
| A2 | 010 | Tuberculosis of respiratory system | — | A45 | 150 | Malignant Neoplasm of buccal cavity and pharynx ... | — |
| A3 | 011 | Tuberculosis of meninges and central nervous system ... | — | A46 | 151 | Malignant Neoplasm of oesophagus | — |
| A4 | 012 | Tuberculosis of intestines, peritoneum and mesenteric glands | — | A47 | 152, 153 | Malignant Neoplasm of stomach | 2 |
| A5 | 014, 016 | Tuberculosis of bones and joints | — | A48 | 154 | Malignant Neoplasm of rectum | — |
| A6 | 019 | Tuberculosis of all other forms | — | A49 | 161 | Malignant Neoplasm of larynx | — |
| A7 | 020 | Congenital Syphilis | — | A50 | 162, 163 | Malignant Neoplasm of bronchus and lung | 1 |
| A8 | 024 | Tabs dorsalis | — | A51 | 170 | Malignant Neoplasm of breast | — |
| A9 | 025 | General paralysis of insane | — | A52 | 171 | Malignant Neoplasm of cervix uteri | — |
| A10 | 022, 023 | All other syphilis | — | A53 | 172-174 | Malignant Neoplasm of other parts of uterus | 1 |
| A11 | 031, 035 | Other gonococcal infections | — | A54 | 177 | Malignant Neoplasm of prostate | 2 |
| A12 | 040 | Typhoid Fever | — | A55 | 190-191 | Malignant Neoplasm of skin | — |
| A13 | 042 | Other Salmonella infections | — | A56 | 196, 197 | Malignant Neoplasm of bone and connective tissue | — |
| A16 | 045 | Bacillary Dysentery | — | A57 | 175, 176 | Malignant Neoplasm of all other and unspecified sites ... | — |
| A17 | 046 | Amoebiasis | — | A58 | 204 | Leukaemia | — |
| A18 | 047 | Other unspecified forms of Dysentery | — | A59 | 200-203 | Lymphosarcoma and other Neoplasms | 1 |
| A20 | 053 | Septicæmia | 1 | A60 | 210-239 | Benign Neoplasm and Neoplasms of unspecified nature ... | 1 |
| A21 | 055 | Diphtheria | — | | | III—Allergic Endocrine System, Metabolic and Nutritional Diseases | |
| A22 | 056 | Whooping Cough | — | A62 | 252 | Thyroiditis | — |
| A23 | 057 | Meningococcal Infections | — | A63 | 260 | Diabetes Mellitus | 2 |
| A25 | 060 | Leprosy | — | A64 | 283-286 | Avitaminosis and other deficiency states | — |
| A26 | 061 | Tetanus | — | | | 02 Pellagra | — |
| A29 | 082 | Acute infectious encephalitis | — | | | 05 Other deficiency states ... | 2 |
| A34 | 092 | Infectious Hepatitis | 1 | | | | |
| A37 | 116-117 | Other and unspecified forms of malaria | — | | | | |
| A41 | 129 | Ankylostomiasis | — | | | | |
| A42 | 04 | Other Diseases due to Helminths | — | | | | |
| A43 | 037 | Lymphogranuloma venereum | — | | | | |
| A43 | 01) | 088 Herpes Zoster | — | | | | |

III—NOTIFICATION

Table A.—Infectious Diseases notified and deaths therefrom during the month of November* 1960, under the Public Health Ordinance, Ch. 12, No. 4.

| DISEASES | TOTAL CASES | | | CASES TREATED PRIVATELY | | | CASES REMOVED TO HOSPITAL | | |
|--------------------------------|----------------|--------|---------------------------------------|-------------------------|--------|---------------------------------------|---------------------------|--------|---------------------------------------|
| | Cases notified | Deaths | Percentage of Deaths to notifications | Cases notified | Deaths | Percentage of Deaths to notifications | Cases notified | Deaths | Percentage of Deaths to notifications |
| Diphtheria ... | 3 | — | — | — | — | — | 3 | — | — |
| Membranous Croup ... | — | — | — | — | — | — | — | — | — |
| Typhoid or Enteric Fever ... | 1 | — | — | — | — | — | 1 | — | — |
| Plague ... | — | — | — | — | — | — | — | — | — |
| Cholera ... | — | — | — | — | — | — | — | — | — |
| Yellow Fever ... | — | — | — | — | — | — | — | — | — |
| Small-pox ... | — | — | — | — | — | — | — | — | — |
| Pulmonary Tuberculosis ... | 5 | — | — | — | — | — | 5 | — | — |
| Tuberculosis (other forms) ... | — | — | — | — | — | — | — | — | — |
| *Pneumonia ... | 1 | — | — | 1 | — | — | — | — | — |
| Ophthalmia Neonatorum ... | 2 | — | — | — | — | — | 2 | — | — |
| Chicken Pox ... | 10 | — | — | 10 | — | — | — | — | — |
| Encephalitis Lethargica ... | — | — | — | — | — | — | — | — | — |
| Acute Poliomyelitis ... | — | — | — | — | — | — | — | — | — |
| Cerebro-spinal Fever ... | — | — | — | — | — | — | — | — | — |
| Typhus Fever ... | — | — | — | — | — | — | — | — | — |
| Acute Ascending Myelitis ... | — | — | — | — | — | — | — | — | — |
| Puerperal Fever ... | — | — | — | — | — | — | — | — | — |
| Anthrax ... | — | — | — | — | — | — | — | — | — |
| Malaria ... | — | — | — | — | — | — | — | — | — |
| Grand Total ... | 22 | — | — | 11 | — | — | 11 | — | — |

Number of Cases notified: — (a) By Private Practitioners, —; (b) By Government Medical Officers 22.

* Lobar, —; Broncho, 1.

† Of the cases treated in the General Hospital, none was sent in by a private practitioner.

* Table B—Distribution of cases notified and deaths certified during the month of November, 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 | — | 1 | — | — | — | 1 | — |
| Membranous Croup ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Typhoid or Enteric Fever ... | — | — | — | — | — | — | — | — | — | — | 1 | — |
| Plague ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Cholera ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Yellow Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Small-pox (Alastrim) ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Pulmonary Tuberculosis ... | 1 | — | — | — | — | — | 2 | — | 1 | — | 1 | — |
| Tuberculosis (other forms) ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Pneumonia ... | — | — | — | — | — | — | — | — | — | — | 1 | — |
| Ophthalmia Neonatorum ... | — | — | — | — | 1 | — | — | — | — | — | 1 | — |
| Chicken Pox ... | 3 | — | — | — | 5 | — | 2 | — | — | — | — | — |
| Encephalitis Lethargica ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Acute Poliomyelitis ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Cerebro-spinal Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Typhus Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Acute Ascending Myelitis ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Puerperal Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Anthrax ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Malaria ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Grand Total ... | 4 | — | — | — | 7 | — | 5 | — | 1 | — | 5 | — |

* Deaths of cases notified in any previous month are also included in this table.

Table C—Comparative Statement of notifications and deaths from Infectious Diseases

| DISEASES FOR NOVEMBER | CASES NOTIFIED | | | | | DEATHS | | | | |
|--------------------------------|----------------|------|------|------|------|--------|------|------|------|------|
| | 1956 | 1957 | 1958 | 1959 | 1960 | 1956 | 1957 | 1958 | 1959 | 1960 |
| Diphtheria ... | 1 | 2 | 2 | 2 | 3 | — | — | — | — | — |
| Membranous Croup ... | — | — | — | — | — | — | — | — | — | — |
| *Typhoid or Enteric Fever ... | 1 | — | — | 1 | 1 | — | — | — | — | — |
| Plague ... | — | — | — | — | — | — | — | — | — | — |
| Cholera ... | — | — | — | — | — | — | — | — | — | — |
| †Yellow Fever ... | — | — | — | — | — | — | — | — | — | — |
| ‡Small Pox ... | — | — | — | — | — | — | — | — | — | — |
| Pulmonary Tuberculosis ... | 8 | 12 | 3 | 6 | 5 | 2 | — | — | — | — |
| Tuberculosis (other forms) ... | — | — | — | — | — | 2 | — | — | — | — |
| Pneumonia ... | 3 | 1 | 2 | 2 | 1 | 3 | 4 | 4 | 10 | 7 |
| Ophthalmia Neonatorum ... | 4 | — | 2 | 2 | 2 | — | — | — | — | — |
| Chicken Pox ... | 9 | 1 | — | 8 | 10 | — | — | — | — | — |
| Encephalitis Lethargica ... | — | — | — | — | — | — | — | — | 1 | — |
| §Acute Poliomyelitis ... | — | — | 1 | 1 | — | — | — | — | — | — |
| Cerebro-spinal Fever ... | — | — | — | — | — | — | — | — | — | — |
| Typhus Fever ... | — | — | — | — | — | — | — | — | — | — |
| Acute Ascending Myelitis ... | — | — | — | — | — | — | — | — | — | — |
| Puerperal Fever ... | — | — | — | — | — | — | — | — | — | — |
| Anthrax ... | — | — | — | — | — | — | — | — | — | — |
| Malaria ... | 1 | — | — | — | — | — | — | — | — | — |
| Grand Total ... | 27 | 16 | 10 | 22 | 22 | 7 | 4 | 4 | 11 | 7 |

September, one notification, no death. October, one notification, no death. November, one notification, no death.

*Twenty-six contacts were inoculated against Typhoid Fever, fifteen receiving one T.A.B. injection each, and eleven receiving two T.A.B. injections each.

†No persons were vaccinated against Yellow Fever during November.

‡89 persons were vaccinated against Small Pox, 17 being primary vaccinations.

§No contacts and other children were inoculated with Salk Vaccine during November.

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.

Births and Deaths of Infants under 1 year, 1957-59

| 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 |

Causes of Deaths, under 1 year, 1959

| 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 | 1 | — | 1 | |
| Prematurity | 42 | — | 42 | |
| Marasmus | 1 | 1 | 2 | |
| Malnutrition | 1 | 2 | 3 | |
| Congenital Abnormalities | — | 1 | 1 | |
| Congenital Heart Disease | 3 | 1 | 4 | |
| Hydrocephalus | 1 | — | 1 | |
| Neonatal Sepsis | 1 | — | 1 | |
| Cerebral Damage | 1 | — | 1 | |
| TOTAL ANTE-NATAL | 51 | 5 | 56 | 35.44 |
| Intra Natal Causes | — | — | — | — |
| TOTAL INTRA-NATAL | — | — | — | — |
| Post-Natal Causes : | | | | |
| Asphyxia and Atelectasis | 15 | — | 15 | |
| Pneumonia | 5 | 13 | 18 | |
| Diarrhoea and Enteritis | 8 | 40 | 48 | |
| Bronchitis | — | 2 | 2 | |
| Icterus Neonatorum | — | — | — | |
| Pleurisy | — | — | — | |
| Tuberculosis | — | — | — | |
| Pulmonary Congestion | 1 | 1 | 2 | |
| Other Post-Natal Causes | 13 | 4 | 17 | |
| TOTAL POST-NATAL | 42 | 60 | 102 | 64.56 |
| GRAND TOTAL | 93 | 65 | 158 | |

Duration of Life of Infants dying under 1 year of Age, 1959

| Duration of Life | No. of Infants | Percentage of Total Deaths under 1 year | Corresponding Percentage, 1958 |
|--|----------------|---|--------------------------------|
| Under 1 day | 17 | 10.76 | 9.94 |
| 1 day and under 2 weeks | 64 | 40.51 | 32.16 |
| 2 weeks and under 1 month | 12 | 7.60 | 9.36 |
| TOTAL UNDER 1 MONTH | 93 | 58.87 | 51.46 |
| 1 month to 3 months | 32 | 20.25 | 14.04 |
| Over 3 to 5 months | 7 | 4.43 | 15.20 |
| Over 5 to 7 months | 15 | 9.49 | 9.36 |
| Over 7 to 9 months | 7 | 4.43 | 7.02 |
| Over 9 to 11 months | 4 | 2.53 | 2.92 |
| Over 11 months and under 1 year | — | — | — |
| TOTAL | 158 | — | — |

Neo-Natal Mortality (Deaths under 1 month) 1930-59

| 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 |

Still Births

The problem of the still birth is intimately bound up with the problem of infant mortality, particularly that section of the infant mortality known as the neo-natal mortality i.e. the deaths of infants under 1 month of age. The same causes that lead to the death of the infant during the first month of post-natal life can lead and do often lead to the death of the infant in the mother's womb if their influence is powerful enough or the infant is so weak and debilitated that it can put up no resistance to their deleterious effects. A certain number of still births is due to the diseases and accidents of pregnancy and confinement and regular ante-natal care and attention and prompt and skilled midwifery during confinement would suffice to reduce and even to eliminate altogether the still births that do occur in these conditions, but there is a large percentage of still births that are attributable to chronic system diseases of mother and father, diseases like syphilis, chronic kidney disease, chronic alcoholism, malaria, diabetes, tuberculosis, chronic heart disease, which exert an adverse influence on the infant and so affect its vitality that it dies in the mother's womb. To reduce this mortality, the prevention, and the prompt and thorough treatment of these diseases when they do occur, are an absolute necessity and no parent suffering from any of these diseases should be permitted to go without skilled medical care and treatment during the whole of the child bearing period. Much can be achieved if the unfortunate victim of syphilis is brought under treatment early and persists with the treatment until discharged; if diabetes is controlled with insulin or the newer anti-diabetic drugs; if malaria or chronic alcoholism can be cured; and seeing that father is an important partner in the business of child bearing equal care and attention must be devoted to him if the still birth rate is to be effectively reduced.

Still Births 1938-1959

| Year | Total Still Births | Rate per 1,000 Live Births |
|------|--------------------|----------------------------|
| 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 8 mothers died in pregnancy and during child birth, and this figure with 2,627 live births give a maternal mortality rate of 3.04 per 1,000 live births as compared with the death of 10 expectant mothers and a maternal mortality rate of 3.85 in 1958.

Cases of Maternal Deaths 1959

| Causes of Maternal Deaths | Under 16 | 16 to 25 | 26 to 35 | 36 and upwards | Total All ages | RATE PER 1,000 BIRTHS | |
|---------------------------|----------|----------|----------|----------------|----------------|-----------------------|-------------------|
| | | | | | | 1959 | Average 1954-1958 |
| Puerperal Sepsis | — | — | — | — | — | — | — |
| Eclampsia | — | — | — | 1 | 1 | 0.38 | 0.4 |
| Haemorrhage | — | — | 1 | — | 1 | 0.38 | 1.8 |
| Pernicious Vomiting | — | — | — | — | — | — | 0.2 |
| *Other Causes | — | 2 | 3 | 1 | 6 | 2.28 | 8.6 |
| TOTAL | — | 2 | 4 | 2 | 8 | 3.04 | 11.0 |

*Other causes include Abortion with Sepsis, Ectopic Pregnancy, Criminal Abortion, Delivery Complications, Difficult Labour (Post Operation Caesarean).

The Pre-School Child

The child between the ages of 1 and 5 is by comparison with the infant under 1 year almost 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. 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 crèches 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 school, 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 39 children between 1 and 5 were registered at the Public Health Department. Of these gastro-enteritis was responsible for the largest number of deaths, 10, with pneumonia in the second place with 6 deaths.

Causes of Death at Ages 1-5, 1959

| GROUPS | Group Total | Percentage of Total Mortality at ages 1-5 |
|--|-------------|---|
| Diseases, &c., attributable to Ante-Natal Causes | — | — |
| Communicable Diseases : | | |
| Pneumonia 6 ; Diphtheria 1 ; Encephalitis 1 | 8 | 20.51 |
| Diseases of the Nervous System : | | |
| Meningitis 2 ; Otitis Media and Mastoiditis 1 ; Hydrocephalus 1 | 4 | 10.26 |
| Diseases of the Circulatory System : | — | — |
| Diseases of the Respiratory System : | | |
| Bronchitis 2 | 2 | 5.13 |
| Diseases of the Digestive System : * | | |
| Gastro-Enteritis 10 ; Ileocolitis 1 | 11 | 28.20 |
| Other Causes : | | |
| Tetanus 4 ; Malnutrition 2 ; Brain Injury 1 ; Not Known 2 ; Burns 1 ; Road Accident 1 ; Homicide 1 ; Patent Ductus Arteriosus 1 ; Retinoblastoma, both eyes 1 | 14 | 35.90 |
| | *39 | — |

*M-24 ; F-15.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

No addition to 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 was made in the year under report and the list remains at 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 particularly 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, small pox (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

CHART G
Port-of-Spain
Infectious Diseases—Notifications and Deaths 1922-1959

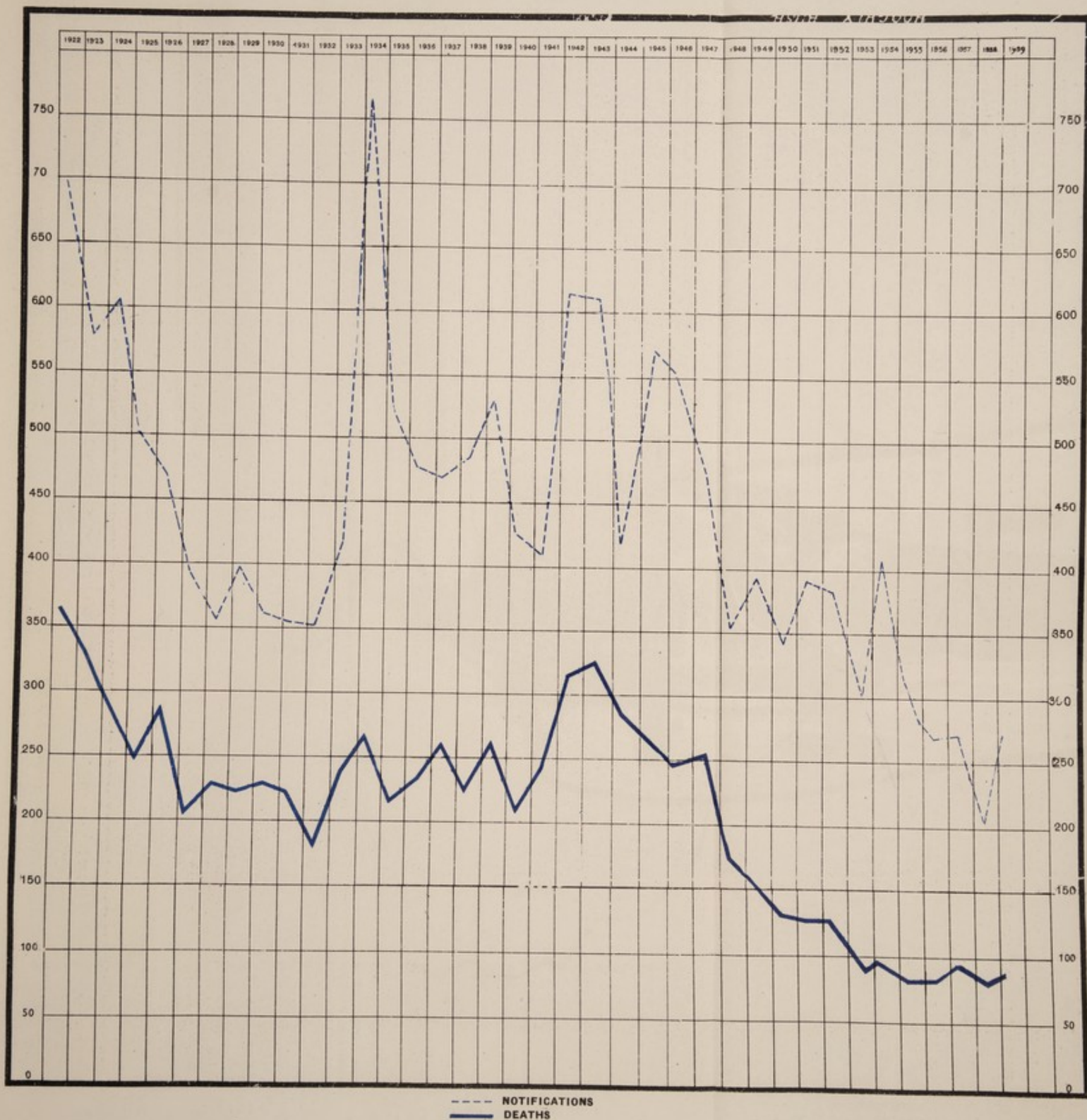
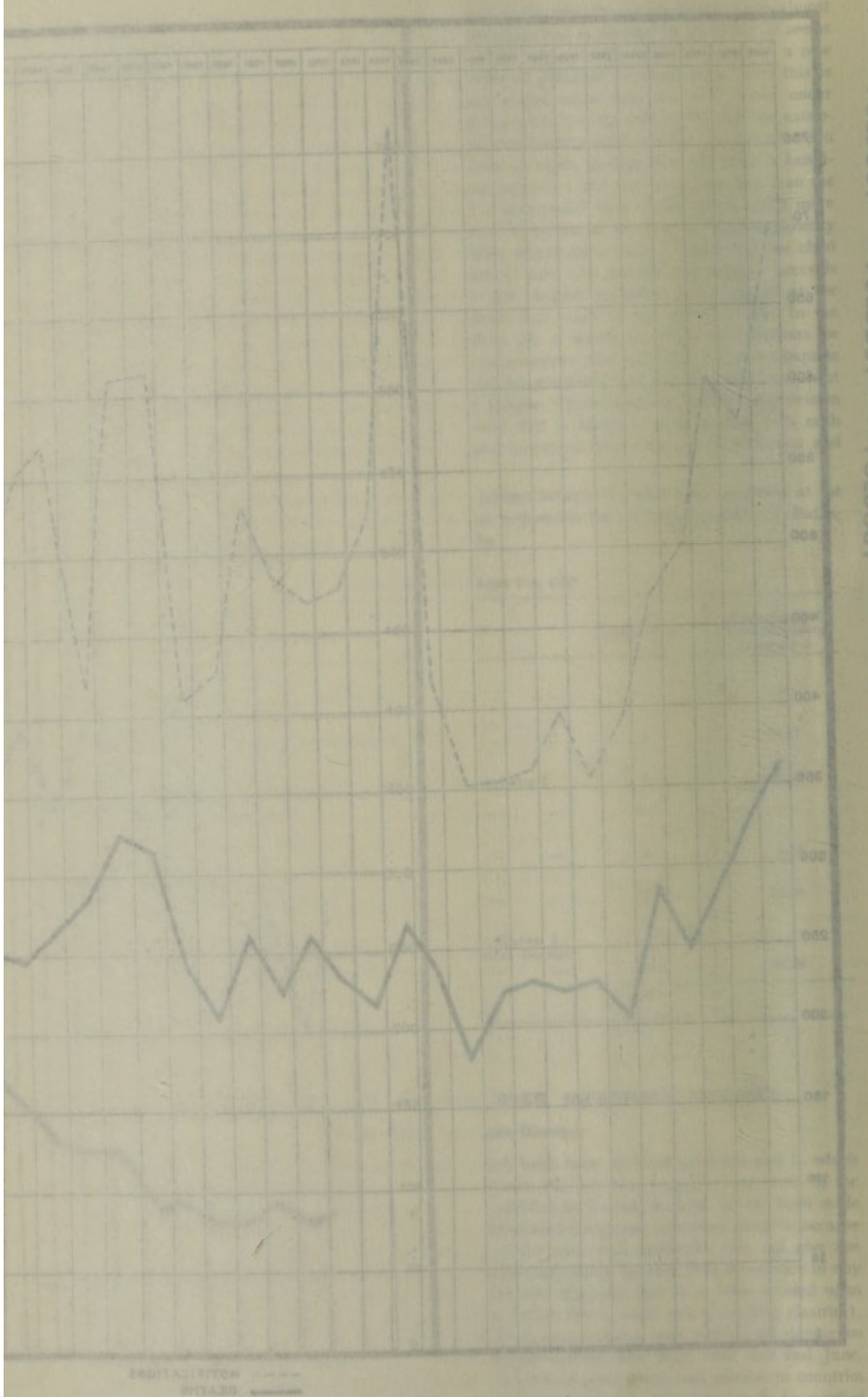


CHART C
Port of Spain
Infectious Diseases—Notifications and Deaths



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.

In the year under report 317 cases of notifiable infectious diseases were reported as against 204 cases in 1958. This was due almost entirely to the fact that an outbreak of chicken pox which resulted in 159 cases being notified occurred in the Urban Sanitary District, whereas only 45 cases of chicken pox were reported in 1958. An increase of 6 cases of pneumonia, 30 as against 24 in 1958, and of 12 cases of diphtheria, 26 as against 14 in 1958, played also a minor part in the total of 317 cases. All other notifiable infectious diseases showed a decline in incidence, typhoid fever 18 as against 22 in 1958, pulmonary tuberculosis 70 as against 75 in 1958, an acute anterior poliomyelitis 1 as against 5 in 1958.

As can always be confidently predicted all the notifiable infectious diseases showed a greater incidence in the unsewered section 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—Notification of Deaths, 1949-1959

| Infectious Diseases | CASES NOTIFIED | | | | DEATHS | | | |
|---------------------------------|--------------------|--------------------|-------|------|--------------------|--------------------|------|------|
| | Average 1949-53 | Average 1954-58 | 1958 | 1959 | Average 1949-53 | Average 1954-58 | 1958 | 1959 |
| Diphtheria ... | 25.8 | 19.2 | 14 | 26 | 1.6 | 1.0 | 2 | 2 |
| Membranous Croup ... | — | 0.2 | — | — | — | — | — | — |
| Typhoid or Enteric Fever ... | 30.0 | 13.8 | 23 | 18 | 4.8 | 1.2 | 2 | — |
| Plague ... | — | — | — | — | — | — | — | — |
| Cholera ... | — | — | — | — | — | — | — | — |
| Yellow Fever ... | — | — | — | — | — | — | — | — |
| Small Pox (Alastrim) ... | — | — | — | — | — | — | — | — |
| Pulmonary Tuberculosis ... | 145.6 | 98.0 | 75 | 70 | 37.6 | 14.2 | 9 | 6 |
| Tuberculosis (other forms) ... | 5.2 | 2.8 | 3 | 2 | 9.8 | 2.6 | 3 | — |
| Pneumonia ... | 66.4 | 34.8 | 22 | 30 | 66.4 | 66.4 | 59 | 70 |
| Ophthalmia Neonatorum ... | 7.0 | 11.0 | 17 | 11 | — | — | — | — |
| Chicken Pox ... | 78.6 | 100.4 | 45 | 159 | — | 0.2 | — | — |
| Encephalitis Lethargica ... | 0.2 | 0.4 | — | — | 0.4 | — | — | 3 |
| Acute Poliomyelitis ... | 1.4 | 11.0 | 5 | 1 | 0.2 | — | — | — |
| Cerebro-Spinal Fever ... | 0.6 | 0.2 | — | — | — | — | — | — |
| Typhus Fever ... | — | — | — | — | — | — | — | — |
| Puerperal Fever ... | 0.2 | 0.2 | — | — | — | 0.8 | — | — |
| Acute Ascending Myelitis ... | — | — | — | — | — | — | — | — |
| Anthrax ... | — | — | — | — | — | — | — | — |
| Malaria ... | — | 0.4 | — | — | — | 0.2 | — | — |
| GRAND TOTAL ... | 361 | 292.4 | 204 | 317 | 120.8 | 86.6 | 75 | 81 |
| Rate per 100,000 Population ... | 338.4 | 246.2 | 168.4 | 319 | 113.2 | 73.0 | 61.9 | 82 |

Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1959

| DISEASES | CITY PROPER | | ST. CLAIR | | EAST DRY RIVER | | BELMONT | | WOODBROOK | | ST. JAMES | |
|--|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|----------------|--------|
| | Cases notified | Deaths | Cases notified | Deaths | Cases notified | Deaths | Cases notified | Deaths | Cases notified | Deaths | Cases notified | Deaths |
| Diphtheria ... | 6 | 1 | — | — | 4 | 1 | 7 | — | 2 | — | 7 | — |
| Membranous Croup ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Typhoid or Enteric Fever ... | 2 | — | — | — | 8 | — | 2 | — | 2 | — | 4 | — |
| Plague ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Cholera ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Yellow Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Small Pox (Alastrim) ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Pulmonary Tuberculosis ... | 28 | 2 | 2 | — | 17 | 2 | 8 | — | 5 | 1 | 10 | 1 |
| Tuberculosis (other forms) ... | — | — | — | — | 2 | — | — | — | — | — | — | — |
| Pneumonia (all forms) ... | 3 | 12 | — | 3 | 15 | 20 | 7 | 7 | — | 5 | 5 | 23 |
| Ophthalmia Neonatorum ... | 2 | — | — | — | 8 | — | 1 | — | — | — | — | — |
| Chicken Pox ... | 33 | — | — | — | 79 | — | 37 | — | 2 | — | 8 | — |
| Encephalitis Lethargica ... | — | — | — | 1 | — | — | — | — | — | — | — | 2 |
| Acute Poliomyelitis ... | (2) | — | — | — | 1 | — | — | — | — | — | — | — |
| Cerebro-Spinal Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Typhus Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Acute Ascending Myelitis ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Puerperal Fever ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Anthrax ... | — | — | — | — | — | — | — | — | — | — | — | — |
| Malaria ... | — | — | — | — | — | — | — | — | — | — | — | — |
| GRAND TOTAL ... | 74 | 15 | 2 | 4 | 134 | 23 | 62 | 7 | 11 | 6 | 34 | 26 |
| Rate per 100,000 Population in each Sub-District ... | 216 | 44 | 120 | 240 | 608 | 104 | 361 | 41 | 87 | 48 | 291 | 223 |

Notifiable Infectious Diseases—Home and Hospital Deaths, 1959

| DISEASES | DEATHS | | | Hospital Deaths Percentage of Total Deaths | Corresponding Percentage for the year 1959 |
|--------------------------------|---------|-------------|-------|--|--|
| | At Home | At Hospital | Total | | |
| Diphtheria ... | 1 | 1 | 2 | 50.00 | 100.00 |
| Enteric Fever ... | — | — | — | — | 100.00 |
| Pulmonary Tuberculosis ... | 4 | 2 | 6 | 33.33 | 77.78 |
| Tuberculosis (other forms) ... | — | — | — | 38.57 | 100.00 |
| Pneumonia (all forms) ... | 43 | 27 | 70 | 38.57 | 37.29 |
| Puerperal Fever ... | — | — | — | — | — |
| Chicken Pox ... | — | — | — | — | — |
| Cerebro-Spinal Fever ... | — | — | — | — | — |
| Acute Poliomyelitis ... | — | — | — | — | — |
| Encephalitis Lethargica ... | 1 | 2 | 3 | 66.66 | — |
| Malaria ... | — | — | — | — | — |
| TOTAL ... | 49 | 32 | 81 | 39.51 | 48.00 |

Premises, &c., Disinfected for Infectious Diseases and Vermin, 1959

| DISEASES | Premises sprayed |
|-----------------------------|------------------|
| Pneumonia ... | 23 |
| Tuberculosis ... | 57 |
| Enteric Fever ... | 19 |
| Diphtheria ... | 22 |
| Puerperal Fever ... | — |
| Ophthalmia Neonatorum ... | 10 |
| Chicken Pox ... | 107 |
| Poliomyelitis ... | 3 |
| Cerebro-Spinal Fever ... | — |
| Leprosy ... | — |
| Encephalitis Lethargica ... | — |
| TOTAL ... | 238 |
| Vermin ... | 711 |

13,957 Cespits 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 on 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 minds 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, 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 the 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 at the end of the year under report plans were being formulated for tackling this problem by means of a mass X-ray campaign in the City of Port-of-Spain.

The rehabilitation of cured patients which is now the main pre-occupation 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 in 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.

Pulmonary Tuberculosis—Notifications and Deaths, 1918-59

| 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 |

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 only 2 cases of non-pulmonary tuberculosis were notified and these two cases of tuberculous meningitis were cured of their 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.

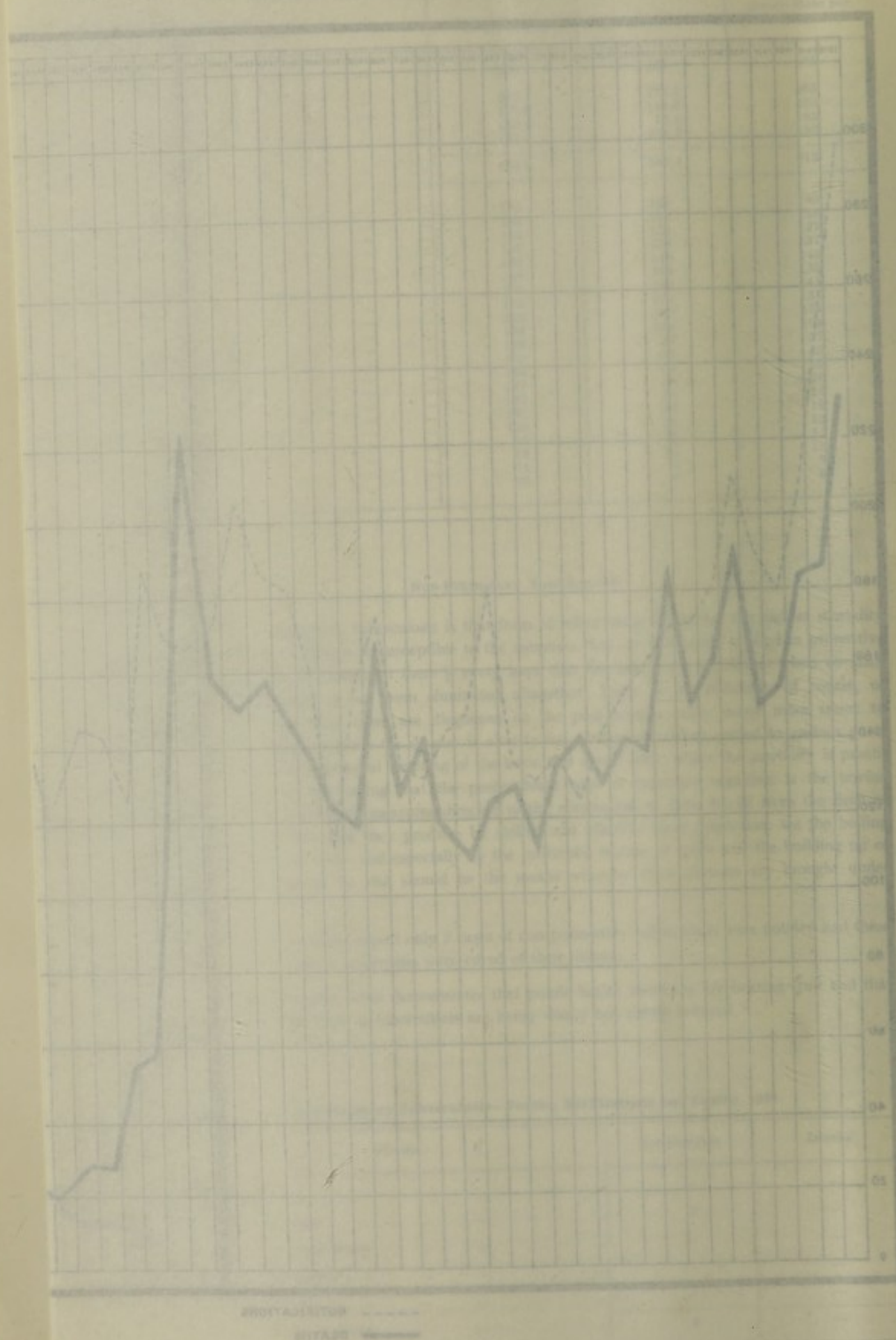
Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1959

| FORMS | | | | Notifications | Deaths |
|--------------------------|-----|-----|-----|---------------|--------|
| Miliary Tuberculosis | ... | ... | ... | — | — |
| Tuberculosis of Meninges | ... | ... | ... | 2 | — |
| Do. Spine and Bones | ... | ... | ... | — | — |
| Do. Peritoneum | ... | ... | ... | — | — |
| Do. Larynx | ... | ... | ... | — | — |
| TOTAL | ... | ... | ... | 2 | — |

CHART H
Port-of-Spain
Pulmonary Tuberculosis—Notifications and Deaths 1918-1959



CHART H
Port of Spain
Pulmonary Tuberculosis—Notifications and Deaths 1918-1939



Deaths from Non-Pulmonary Tuberculosis, 1924-1959

| 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 | | | | | | — | — |

Enteric Fever

The incidence of enteric fever in a community is an index of the efficiency of the methods and the systems that are employed to dispose of faecal matter in that community and any method of disposal that involves the retention of faecal matter in close proximity to dwelling houses is almost invariably associated with a high incidence of typhoid fever. For typhoid fever is transmitted through the agency of faecal matter, the infected faecal matter of one man finding its way into the susceptible intestinal tract of another man, either in the food that he eats or by means of contaminated fingers finding their way, wittingly or unwittingly, into the mouth. It is also an index of the general level of education in the community, of the state of sanitation and of the efficiency of environmental and personal hygiene; it reflects the work of the local sanitary authority; the nature and extent of the services that it provides, the means adopted to dispose of refuse and faecal matter, the measures directed to the securing of good, clean and safe food, &c., &c. It is therefore inevitable that public health authorities devote special attention to the incidence and spread of this disease and make determined efforts to secure its elimination altogether.

Among the first questions asked by a visitor to the City relate to the nature and quality of the water supply; the amount of control that exists over the food supply; where it comes from? How and where it is prepared? Under what conditions it is exposed for sale or sold? What of the food handlers? Are they subjected to medical examination, how are they clad? What of the hotels, restaurants, groceries, shops, parlours? How is food stored, prepared and served in these places? How is refuse and faecal matter disposed of? Is the City sewered? If these questions can be answered satisfactorily he is going to stay; if any doubt or suspicion enters his mind his stay will be short as he cannot afford to, and will not take a chance with the health of his body.

The decline in the incidence of typhoid fever in the City of Port-of-Spain is signal evidence of the part that well directed public health measures can play in the control of an infectious disease. Typhoid fever is becoming less and less a public health problem with each passing year. In the year 1918, when, with the establishment of the Local Sanitary Authority in 1917, it became possible for the first time to compile reasonably accurate statistics for the City of Port-of-Spain, 495 cases of typhoid fever with 104 deaths occurred within the limits of the City; in the year 1959, 18 cases of typhoid fever with no deaths occurred. Three factors have by their combination been responsible in the main for this satisfactory decline: the general level of sanitation and environmental hygiene has shown marked improvement, to which the progressive sewerage of the City has contributed an important part; the chlorination of all sources of water supply, which event took place in 1921; and the day to day routine public health measures of isolation, disinfection of premises and fomites, the detection of contacts and their inoculation with anti-typhoid and paratyphoid vaccines, whenever and wherever that course becomes possible. Every case of typhoid fever that occurs in the Urban Sanitary District is carefully investigated with a view to detecting the source of infection, to insure that current and terminal disinfection of premises and fomites takes place, and to sort out all contacts and make sure that they are inoculated against the disease. In the unsewered areas of the City the disinfection and oiling of all cesspits within a radius of one mile are undertaken as a routine measure in an effort to diminish the possibility of infected

faecal matter contaminating foodstuffs, especially those of the green variety and eaten raw, such as water cress, lettuce, cabbage, tomatoes, &c., which we have reason to believe is the main source of the cases of typhoid fever that do occur nowadays in the Urban Sanitary District.

We are confident that when the rest of the City is sewered and when the Sub-districts of Belmont and the East Dry River are provided with an adequate water supply and their sanitation and environmental hygiene improved, typhoid fever will disappear altogether from the Urban Sanitary District.

Enteric Fever

Notifications and Deaths, 1918-1959

| 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 | — | — |

Inoculation of Enteric Fever Contacts, 1959

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 |

*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 its victim, cause such a degree of invalidism and often gave 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.

CHART I
Port-of-Spain

Enteric Fever—Notifications and Deaths 1918-1959

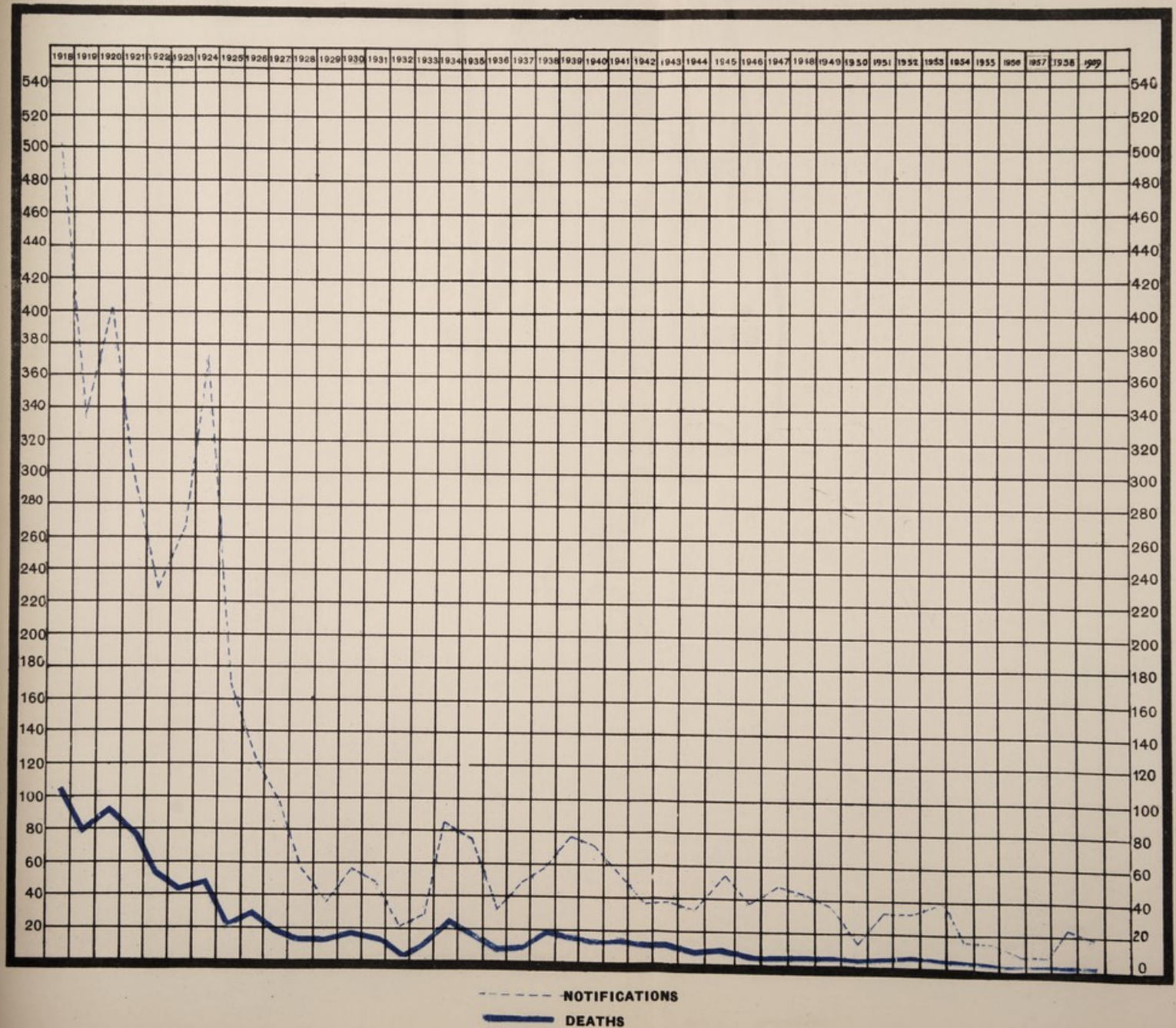
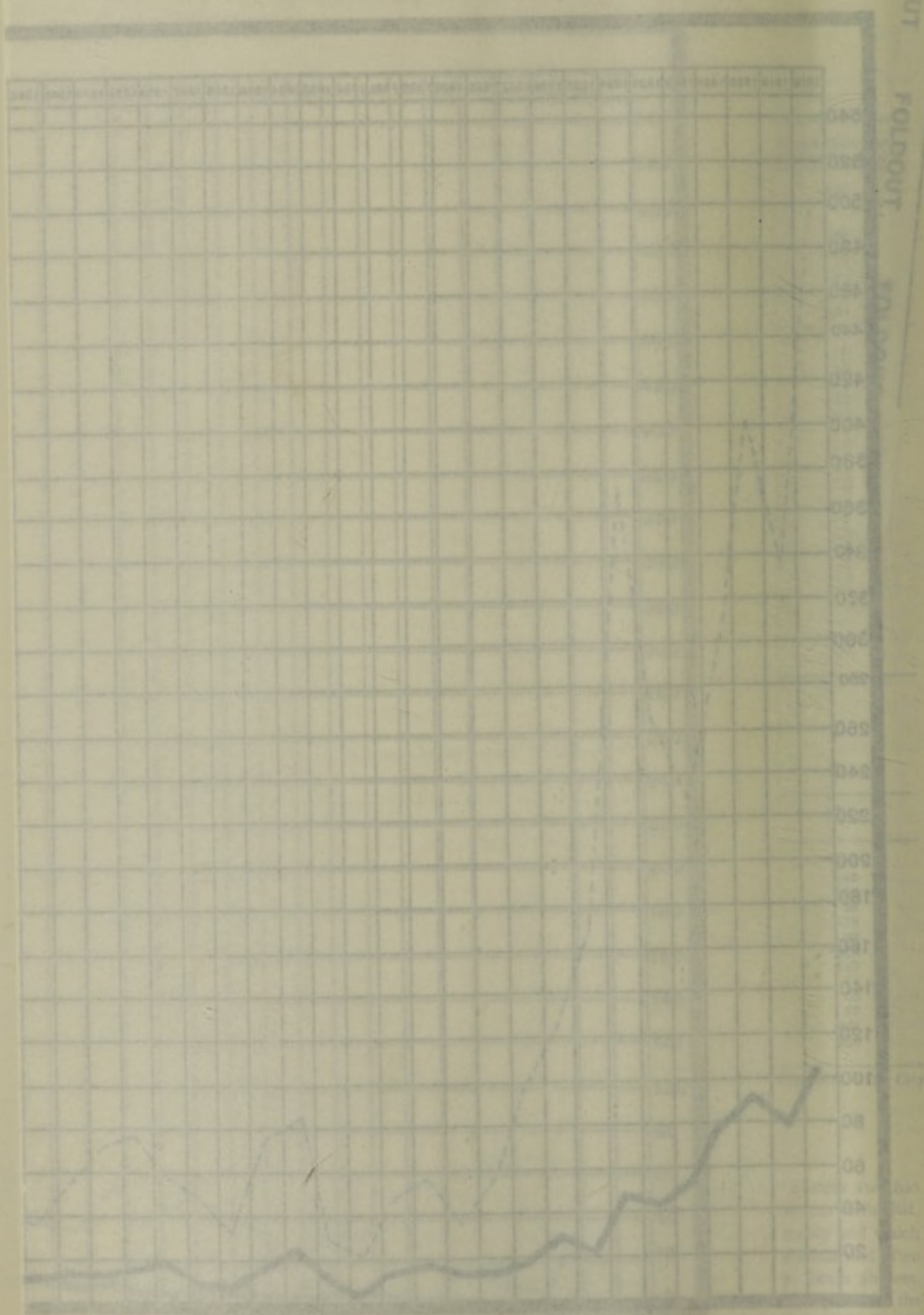


CHART I Port of Spain

Enteric Fever - Notifications and



NOTIFICATION
DEATHS

At one time it was a disease that practitioners used to notify with meticulous care and in regard to which the number of notifications 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 almost 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 sulpha, &c. and 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 years 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 is 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 30 cases were notified, and over twice that number, 70 deaths, were certified to pneumonia; many of these were, of course, cases of terminal pneumonia, the ultimate complication of a long and debilitating disease, but 21 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, 1922-59

| 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 |
| 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 |

Diphtheria

Though the number of cases of diphtheria notified to the Department cannot be considered large and no great increase in incidence of the disease can be recorded during the past twenty years, yet judging from the number of persons who are actively immunised and the number of parents who make inquiries at the Department as to the possibility of having their children immunised, it is obvious that the citizens of Port-of-Spain are getting more and more concerned about diphtheria and are now alive to the possibility of eliminating the disease altogether by the process of active immunisation.

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.

The cases of diphtheria that occur in the City are predominantly of the mild type and the mortality attributable to the disease cannot be considered high though every now and then a series of virulent cases does occur which causes a high mortality, such as happened in the year 1945 when 20 cases were notified and 5 deaths certified.

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 Bacteriological Laboratory for confirmation of the diagnosis and for test of virulence, but that treatment with anti-toxic 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.

During the year under report 26 cases of diphtheria were notified and 2 deaths certified. The largest number of cases that have been notified to the Department was 61 with 2 deaths in the year 1939. 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 1-5 and 6-10 years.

Diphtheria

Notifications and Deaths, 1917-59

| 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 |
| Year | | | | | | | |
| 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 |

Chicken Pox

The Department had to contend with an outbreak of Chicken Pox in the year under report; 159 cases of the disease were notified, the largest number of notifications during the past 10 years and the second largest in the history of the Local Sanitary Authority, 196 cases having been notified in the year 1946. No deaths were certified to the disease; such has been the case since 1917 when the Local Sanitary Authority was first established and when, as a result, it was possible to compile statistics relating to the City alone.

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 brings the possibility of small pox to mind and make it imperative for the Medical 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 epidemic 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 termination, 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, 1924-59

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

Malaria

In March 1956 malaria was declared a notifiable infectious disease and so malaria takes its proper place now among the notifiable infectious diseases; previously it used to be considered among those listed under the heading "non-notifiable infectious diseases".

No new development in the malaria problem in so far as it affects the City has taken place in the year under report and the position remains substantially the same as detailed in my report for the year 1958. Generally it may be stated with certainty that malaria is, with each succeeding year, becoming less and less a public health problem in this Territory and thanks to the splendid efforts of the Malaria Division of the Health Department of Government which continues to execute a well planned anti-malaria programme with its customary energy, drive and efficiency, malaria bids fair to be eliminated altogether and to cease eventually to have any public health significance.

The areas of Laventille and Cocorite which immediately adjoin the City at its eastern and western limits and which at one time posed such a serious threat to the City because of their highly malarious nature are now completely free of malaria, the result of the work of the Malaria Division and though the permanent works, which have been advocated in these annual reports since 1943 to get rid of the potentially dangerous Cocorite Swamp, still continue to be in paper form only, yet the temporary works of the oiling, draining and canalising of the collections of stagnant water that abound in the area that are being executed week in, week out, have had the effect of ridding this Swamp of dangerous malaria carrying anophelene mosquitoes. The cost of these temporary measures could well have gone a good deal of the way towards paying for the cost of permanent works, which would have, at the same time, the added effect of reclaiming a large expanse of valuable land suitable for building purposes and so badly needed for additional housing accommodation.

At certain times of the year, and during the rainy season particularly, anophelene mosquitoes do make their appearance within the limits of the City at its extreme eastern and western limits and some anxiety is felt as to the possibility of an outbreak of malaria, if malaria carrying anophelene mosquitoes were to gain a foothold and spread the disease among residents in those particular areas; and it must not be forgotten that cases of malaria are treated occasionally at the General Hospital, Port-of-Spain, and that old febricitants who once lived in a malarious area in the country districts but who have since taken up residence in the City do get, as a result of the lowering of their resistance, periodic recrudescences of an infection which was never really eradicated. The culex and anopheles section of the Anti-Mosquito Unit has always, however, been able to detect these infestations at a fairly early stage and have succeeded in bringing them under control by the time honoured measures of oiling, draining and sometimes of filling in of depressions where stagnant brackish water collects. It is clear that this section of the 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 anophelene from the adjoining areas to the East, North-east and West are likely to establish breeding grounds.

The gratitude of the Local Sanitary Authority to the Malaria Division of the Health Department of Government is here recorded for the goodwill that they have always shown to the Public Health Department of the City and the ready assistance that they have always given in the many and varied mosquito problems that affect the City.

As I have stated before, the Territory is being surely and rapidly freed of malaria as a result of the intensive campaign now being executed by the Malaria Division and both rural and urban practitioners continue to refer to the lowered incidence of malaria that has taken place as a result; malaria will soon become a rarity because of the energy and drive with which a major public health problem has been and is being tackled.

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

Malaria—Local Distribution of Deaths, 1950-59

| Sub-Districts | DEATHS | | | | | | | | | |
|--------------------|--------|------|------|------|------|------|------|------|------|------|
| | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 |
| 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, 1927-59

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

Other Notifiable Infectious Diseases

Three returns in which death was certified to Encephalitis Lethargica were received in the Department in the year under report; they were not notified during the lifetime of the victims. No notifications of or death from Paralytic Rabies were recorded during 1959. 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 1959.

NON-NOTIFIABLE INFECTIOUS DISEASES

Under this heading are usually listed 8 diseases 3 of which are usually spread by means of droplet infection, e.g. measles, whooping cough, and influenza; 2 by close contact with the individuals suffering from the disease, viz. syphilis and leprosy; 3 by infection of the human body directly with faecal matter that has become infected as in ankylostomiasis, or through the agency of a vector or carrier, as in dysentery and diarrhoea and enteritis. The degree of infectivity varies but they can be and often are responsible for much ill-health and incapacity and they can exact and do exact a heavy toll of mortality.

Measles and whooping cough are among the common ailments of childhood and spread with great rapidity from child to child; in fact on occasions when large epidemics of these diseases occur they have been made notifiable for the specific purpose of enabling public health officers to discover on what premises they are occurring and to apply thereon the preventive measures of isolation and current and terminal disinfection, as far as it is possible to do so with a view of checking their spread.

Syphilis and Leprosy are contagious diseases and are spread by intimate contact, though only intimate contact over a period of years seems to transmit leprosy, as has been demonstrated time and again at the Chacachacare Leprosarium. They are responsible for much social stigma, misery, and suffering; for economic loss, the result of the lack of manpower, for prolonged invalidism and

for disease of the various systems of the body, and the mortality they exact is quite appreciable. In fact large scale schemes are at the moment being actively executed by the Venereal Disease and Leprosy Divisions of the Health Department of Government whose efforts are directed to the diminishing of the morbidity and mortality attributable to these diseases.

Ankylostomiasis is a rare disease within the limits of the Urban Sanitary District but cases can occur in the upper hilly areas of the East Dry River and Belmont Sub-districts where faecal matter does occasionally escape from defective privy cesspits and is apt to soil the toes and feet of residents who go about barefooted.

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, and fruit that is eaten unwashed and unpeeled; 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 1 year of age and in children of the pre-school period.

It is to be regretted that death returns only are available to gauge the incidence of these diseases and even these can be grossly misleading seeing that many deaths certified to other well known and common causes are indeed and in fact caused by one or other of these diseases, the complication that the disease has given rise to being listed as the immediate cause of death. Such at times for instance is a death certified to cerebral thrombosis, aortic regurgitation, aneurysm, paraplegia, and even coronary thrombosis and arteriosclerosis which is quite often caused by syphilis, this being the basic underlying disease that gave rise to the immediate cause of death. Liver abscess may be the only clinical manifestation of amoebic dysentery, anaemia of ankylostomiasis, and myocardial degeneration of antecedent influenza.

It would be misleading therefore to rely on the death returns only for information as to the relative prevalence of these diseases in the City or to determine where victims of these diseases acquired the infection, as it is a well known fact that investigation of cases after death does not meet with the same degree of success that is likely to be achieved if the case were notified during life and immediately investigated. Notification would go a long way to solve these difficulties and in spite of the fact that there are certain objections which may conscientiously be entertained when the question of notifying some of these diseases is considered like the social and domestic aspects of syphilis and leprosy, they are not insurmountable, and some at least of these diseases should for the reasons stated be declared notifiable infectious diseases.

Non-Notifiable Infectious Diseases—Home and Hospital Deaths, 1959

| DISEASES | DEATHS | | | Hospital Deaths per cent. of Total Deaths | Corresponding Percentage for the year 1958 |
|------------------------|---------|-------------|-------|---|--|
| | At Home | At Hospital | Total | | |
| Whooping Cough | — | — | — | — | — |
| Influenza | 30 | 4 | 34 | 11.76 | — |
| Dysentery | — | 3 | 3 | 100.00 | 100.00 |
| Ankylostomiasis | — | — | — | — | — |
| Syphilis | 8 | 5 | 13 | 38.46 | 23.53 |
| Leprosy | — | — | — | — | — |
| TOTAL | 38 | 12 | 50 | 24.00 | 30.00 |

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. In so far 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 seat 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 the 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 of 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 State aid, &c., &c. to these people, are of sufficient importance to cause an acute difference of opinion as to the value of notification. It is, of course, a well recognized 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 this 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 arterio-sclerosis is often a death that should be certified to syphilis, which is the 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 |
| 1953 | 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 |

Dysentery, Diarrhoea and Enteritis

Much more precise and accurate information is usually necessary, information that could be obtained by trained sanitary inspectors and health visitors if these diseases were made notifiable, before it is possible under existing circumstances to give the numerous cases of so-called dysentery and diarrhoea and enteritis their correct label, for as they are usually certified on death certificates they constitute a "mixed bag", exhibiting the common features of looseness of the bowels with the passage in some cases of blood and mucus. They are usually classified as "bowel filth" diseases and in a sense this is a useful term indicating as it does that the cause of this group of diseases is infected faecal matter which gives rise to the contamination of foodstuffs particularly those that are consumed raw or partially cooked such as green vegetables, water cress, lettuce, cabbage, various fruits, as well as milk, ice cream, ices, and made-up dishes like mayonnaise, pastry, pies, sausages, and so reaches the alimentary tract of man where the germs multiply and produce the disease. It does also happen on occasions that "canned" foodstuffs are the vehicle whereby these infections are introduced into the alimentary tract of the body, particularly "canned" foodstuffs that are in the early stages of blowing due to improper and inadequate processing.

But there can be no doubt that many and various diseases are often included under this heading. Some of these are cases of true dysentery, others are cases of tuberculosis or cancer of the bowels, helminthiasis, protozoal infections, &c., &c.; others again are cases of food poisoning and corresponding with this varied aetiology is the fact that the age incidence also varies considerably, many cases occurring in infants and a fair number in the aged.

Transmission from case to case by fingers and/or fomites is another possibility, if those who are attending or nursing a case of the disease are not careful about disinfecting or washing their hands thoroughly before partaking of food, or are the victims of that disgusting habit of licking or sucking the fingers, but this method of spread is rare and exceptional. In fact the diarrhoea and enteritis of infants and young children represents a special disease which is almost exclusively conveyed by contaminated milk and which is almost certainly due to the toxins produced by the activity of organisms of either the food poisoning or dysentery variety. This disease is usually associated with dirt and squalor and the inadequate and inefficient disposal of excreta, with overcrowding and congestion, poverty and malnutrition, and the figures detailed in the table below confirm the fact, as can be confidently predicted, that the East Dry River District continues to furnish, as it has always done, year after year, far and away the largest number of cases of this disease in the year under report.

In view of the fact that invariably the knowledge of the existence of cases of these diseases reaches the public health official only after death has taken place, preventive measures are not always easy of application, but there can be no doubt whatsoever that intensive measures to secure good clean and wholesome food, free from contamination by vermin or by dust, dirt, flies and other insects, milk and ice-cream that is efficiently pasteurised, as well as a persistent drive to improve the general level of environmental hygiene, and to diminish congestion and overcrowding and last but not least to eliminate the privy cesspit system and to substitute in its place the water-borne system of sewage disposal must remain the sheet anchor of all action directed to a reduction in number of deaths attributed to this group of diseases as a whole, and to diarrhoea and enteritis particularly.

Deaths from the Dysenteries, 1918-59

| 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 |

Deaths from Diarrhoea and Enteritis—1918-59

| 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 |

Diarrhoea and Enteritis—Deaths in Sub-districts, 1959

| Sub-districts | | | | | | | Deaths |
|----------------|-----|-----|-----|-----|-----|-----|--------|
| City Proper | ... | ... | ... | ... | ... | ... | 11 |
| St. Clair | ... | ... | ... | ... | ... | ... | 1 |
| East Dry River | ... | ... | ... | ... | ... | ... | 25 |
| Belmont | ... | ... | ... | ... | ... | ... | 16 |
| Woodbrook | ... | ... | ... | ... | ... | ... | 4 |
| St. James | ... | ... | ... | ... | ... | ... | 12 |
| Total | ... | ... | ... | ... | ... | ... | 69 |

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 the "Killer", 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. In fact the reverse is the case; the number of deaths caused by cardiac and vascular diseases has increased in the year under report and though the increase in mortality has not attained alarming proportions 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.

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 299 deaths from cardiac and vascular diseases were registered. It is to be noted in regard to this mortality that only 20 persons were under 40, 75 were between 40 and 60, and 204 over 60 years of age.

Deaths from Cardiac and Vascular Diseases in Age Groups, 1959

| FORMS | 0-20 years | 21-40 years | 41-60 years | Over 60 years | Total |
|---|---------------|----------------|----------------|------------------|-------|
| Rheumatic fever | — | 1 | — | — | |
| Chronic Rheumatic heart disease ... | 1 | 1 | 2 | 1 | 5 |
| Arteriosclerotic and degenerative heart disease | 2 | 8 | 47 | 111 | 168 |
| Other diseases of the heart | 1 | 2 | 12 | 37 | 52 |
| Hypertension with heart disease ... | — | 1 | 6 | 34 | 41 |
| Hypertension without mention of heart ... | — | 1 | 6 | 7 | 14 |
| Diseases of arteries | 1 | 1 | 1 | 14 | 17 |
| Other diseases of circulatory system ... | — | — | 1 | — | 1 |
| Total | 5 | 15 | 75 | 204 | 299 |

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 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 though 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.

During the year under report 113 persons who resided within the limits of the City died of cancer and other malignant disease, the second largest number of victims since 1918 when it was first rendered possible, with the establishment of the Local Sanitary Authority in 1917, to compile statistics that relate to the City alone.

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

Cancer and other Malignant Diseases, 1959

| Malignant Neoplasms | DEATHS | |
|---|--------|---------|
| | Males | Females |
| Malignant neoplasm of buccal, cavity and pharynx | 2 | 1 |
| Malignant neoplasm of oesophagus | 3 | — |
| Malignant neoplasm of stomach | 17 | 6 |
| Malignant neoplasm of intestine, except rectum | 6 | 2 |
| Malignant neoplasm of rectum | 3 | 2 |
| Malignant neoplasm of larynx | — | — |
| Malignant neoplasm of trachea and of bronchus and lung not specified as secondary | 2 | 1 |
| Malignant neoplasm of breast | — | 13 |
| Malignant neoplasm of cervix uteri | — | 10 |
| Malignant neoplasm of other and unspecified parts of uterus | — | 10 |
| Malignant neoplasm of prostate | 1 | — |
| Malignant neoplasm of skin | — | — |
| Malignant neoplasm of bone and connective tissue | — | 1 |
| Malignant neoplasm of all other and unspecified sites | 10 | 14 |
| Leukaemia and aleukaemia | 2 | 4 |
| Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system | 1 | 1 |
| Benign neoplasms and neoplasms of unspecified nature | — | 1 |
| Total | 47 | 66 |

Deaths from Cancer and other Malignant Diseases, 1918-59

| 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 |

SANITARY ADMINISTRATION

Staff

During the year under report the fixed establishment of the Public Health Department comprised 208 employees of whom 53 were members of the permanent pensionable staff and 155 members of the non-pensionable daily paid staff.

But at the end of the year, of the permanent pensionable staff of 53 only 46 were actually permanent employees; 6 posts of sanitary inspector were vacant, 4 of these vacant posts being filled by men in a temporary capacity, 2 posts remained unfilled, there being no suitable and qualified person to fill them even in an acting capacity, and 1 post was rendered vacant by the transfer of an inspector to another department of the Corporation; the three vacant posts of health visitor again could not 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, however, 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 the 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, types of building, but they range from 700 to 1,000 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 least once in 6 weeks.

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. and he has, as his duty, to control and supervise the various gangs who operate the 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, and discipline 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 inspectors of some maturity and in good standing, with the knowledge, experience and the necessary administrative ability to 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 the Buildings Inspector concerned with building plans of all kinds, who, in addition, inspects, examines and reports on layouts, leases, assignments, and kindred matters. It is his duty to see to it that the 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 boundaries, and last but not least the sanitary conveniences. One inspector, the Anti-Rat and Anti-Bat Inspector, is in charge of and plans, directs, supervises and controls the work of the Anti-Rat and Anti-Rabies (Anti-Bat) Unit. Three inspectors are assigned to food inspection work one of whom is the 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 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 of nuisances in so far as food is concerned, preparatory to inspection for actual registration by the Food Inspector. One Inspector is now the Health Education Officer of the Department and plans, direct, 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 supply services 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, in addition to his routine duties of planning, directing and supervising the work of a certain number of the District Sanitary Inspectors.

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 new comers 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 establishment), one checker, 8 foremen with 9 Grade A trappers and 20 Grade B trappers, and the Anti-Rabies Unit of one checker, 4 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 recorder, 2 foremen, 9 supervisors together with 17 Grade A mosquito inspectors and 36 Grade B mosquito inspectors.

One sub-overseer is in charge of the Disinfection Unit and plans, directs, supervises and controls the operations of the Unit which comprises 2 spraymen and 5 other men engaged in disinfection work; he also directs, controls and supervises the work of the Public Conveniences Unit which now comprises 14 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 the report the outdoor staff of the Department comprised 27 sanitary inspectors, 2 overseers, 2 sub-overseers, 1 supervisor of the cleaning of cesspits and 155 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, direction, 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, 1959

Average Monthly Number of Visits to Dwellings, Shops and other Premises ... 8,040

Inspection of Stores, Shops, &c.

| | <i>Average Monthly No. of Visits</i> | | <i>Average Monthly No. of Visits</i> |
|---------------------------------|--|-----------------------------|--|
| Provision and Meat Shops ... | 185 | Cinemas ... | 7 |
| Provision Stores ... | 43 | Sweet Drink Carts ... | 32 |
| Restaurants and Cookshops ... | 64 | Dairies and Cowsheds ... | 40 |
| Bakehouses ... | 29 | Stables ... | 45 |
| Bread Depots ... | 13 | Goat Pens ... | 35 |
| Cake and Ice Cream Shops ... | 164 | Aerated Water Factories ... | 5 |
| Fry Shops ... | 21 | Soap Factories ... | 2 |
| Hotels ... | 10 | Other Factories ... | 75 |
| Markets ... | 4 | Schools ... | 34 |
| Spirit Shops ... | 49 | Common Lodging Houses ... | 10 |
| Ice Cream Carts and Pails ... | 81 | Barber Shops ... | 33 |
| Cake Trays and Baskets ... | 168 | Dye works ... | 2 |
| Provision Trays and Baskets ... | 109 | Laundries ... | 26 |
| Bread Carts and Baskets ... | 19 | Garages ... | 32 |
| Fresh Fish Trays ... | 21 | Tanneries ... | 3 |
| Oyster Vendors' Baskets ... | 11 | Public Urinals ... | 6 |
| Plantain Carts ... | 1 | Boats ... | 20 |

Results of Notices and Verbal Directions—1959

| | Constructed, installed or provided | Repaired | Cleaned | Painted | Elimi- nated | Lime Washed | Oiled |
|---|--|----------|---------|---------|-----------------|----------------|-------|
| Yard pavements | 92 | 165 | — | — | — | — | — |
| Depressions in yards | — | — | — | — | 153 | — | — |
| Yards | — | — | 6,249 | — | — | — | — |
| Drains, sinks, gullies, washing troughs, &c. | 272 | 679 | 5,101 | — | — | — | — |
| Lavatories, sewer basins, flush tanks urinals, bathrooms, &c. | 341 | 375 | 1,612 | — | — | — | — |
| Privies | 145 | 780 | — | — | — | 562 | — |
| Cossbits | 86 | 211 | 1,345 | — | — | — | 12 |
| Manure Heaps | — | — | — | — | 380 | — | — |
| Rat Holes | — | — | — | — | 166 | — | — |
| Tree Shade, Overgrowths of bush | — | — | — | — | 1,271 | — | — |
| Dustbins | 887 | 154 | 659 | — | — | — | — |
| Dustbins covers | 477 | — | — | — | — | — | — |
| Shops, Parlours, Restaurants, Bakehouses Hotels, &c. | — | 275 | 3,035 | 531 | — | 363 | — |
| Aerated Water Factories | — | — | 44 | — | — | 3 | — |
| Broad Carts | — | — | — | — | — | — | — |
| Barracks, Common Lodging Houses | — | 20 | 53 | 8 | — | 34 | — |
| Garages, Kitchens | — | 59 | — | — | — | 70 | — |
| Cowsheds, Stables | — | 39 | 230 | — | — | 52 | — |
| Tanneries, Soap Factories, &c. | — | — | — | — | — | 2 | — |
| Close-boarding, Ventilation of Houses | 5 | — | — | — | — | — | — |
| Barber-Shops and other Workshops | — | — | 88 | 32 | — | — | — |
| Glass Cases and Covered Trays | 409 | 517 | — | 606 | — | — | — |

Reports to Water and Sewerage Department—1959

| Reports | Total |
|---|-------|
| Leaks, defective taps, chokes, &c. | 1,001 |

Anti-Rabies Measures—1959

| TRAPPING, ETC. OF BATS | | | |
|---|-----|-----|--------|
| Number of locations for roosts of Bats | ... | ... | 12,940 |
| BATS CAUGHT | | | |
| <i>Artibeus lituratus palmarum</i> (Trinidad Fruit Bat) | ... | ... | 155 |
| <i>Artibeus jamaicensis trinitatis</i> (Jamaica Fruit Bat) | ... | ... | 128 |
| <i>Molossus m. major</i> (Small Free-tailed Bat) | ... | ... | 10 |
| <i>Carollia p. perspicillata</i> (Common Leaf-nosed Bat) | ... | ... | 4 |
| <i>Glossophaga longirostris major</i> (Greater Long-tongued Bat) | ... | ... | 15 |
| <i>Glossophaga s. soricina</i> (Long-tongued Bat) | ... | ... | 13 |
| <i>Phyllostomus d. discolor</i> (Lesser Spear-nosed Bat) | ... | ... | 1 |
| <i>Centurio senex</i> (Wrinkled face Bat) | ... | ... | 9 |
| <i>Saccopteryx leptura</i> (Sac-winged Bat) | ... | ... | 2 |
| <i>Thyroptera t. tricolor</i> (Sucker-foot bat) | ... | ... | 1 |
| | | | 338* |

* BATS CAUGHT OUTSIDE CITY LIMITS

Fort Picton Cave ... 1 *Glossophaga longirostris major* (Greater Long-tongued Bat)

Building Plans, Etc.—1959

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

| | |
|--|-----|
| On plans, &c., for reconstruction or reconditioning of buildings ... | 677 |
| On applications for leases of land in Woodbrook and Gonzales Place ... | 77 |
| On premises in which building operations were in progress ... | 166 |
| On application for certificates of completion of buildings ... | 78 |

Cleaning of Privies, Etc.—1959

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

| | |
|--------------------|-------------|
| East Dry River ... | 495 |
| Belmont ... | 511 |
| St. James ... | 212 |
| Woodbrook ... | 127 |
| | <hr/> 1,345 |

Out Districts ...

Outstanding cesspits up to 31st December, 1959 numbered 40.

Average cost per cesspit emptied : \$37.92.

Prosecutions—1959**CASES DETERMINED BY THE MAGISTRATE**

| <i>Offences</i> | <i>No. of Cases</i> | <i>Results Total Fines, &c.</i> |
|--|---------------------|---|
| Failing to comply with nuisance notices | 14 | Fined \$175.00 |
| | 15 | Reprimanded |
| | 132 | Adjourned |
| | 3 | Dismissed |
| | 14 | Fresh Summonses |
| | <hr/> 178 | |
| Breaches of Sale of Foodstuffs Bye-laws | 6 | Fined \$76.00 |
| | 5 | Reprimanded |
| | 10 | Adjourned |
| | 6 | Withdrawn |
| | 12 | Fresh Summonses |
| | <hr/> 39 | |
| Failing to provide a receptacle for House Refuse | 2 | Fined \$10.00 |
| | 4 | Reprimanded |
| | 8 | Adjourned |
| | 3 | Fresh Summonses |
| | <hr/> 17 | |
| GRAND TOTAL | <hr/> 234 | |

Cases**Summary**

| | |
|-----------|-----------------|
| 22 | Fined \$261.00 |
| 24 | Reprimanded |
| 150 | Adjourned |
| 3 | Dismissed |
| 6 | Withdrawn |
| 29 | Fresh Summonses |
| <hr/> 234 | |

Leave of Absence—1959

| | Vacation Leave No. of days | Sick Leave No. of days | Local Leave No. of days |
|--|-------------------------------|---------------------------|----------------------------|
| Assing, C. C.—Deputy Chief Sanitary Inspector ... | 20 | 7 | 3 |
| Aberdeen, K.—2nd Class Clerk ... | 33 | 5 | 13 |
| Andries, P.—Sanitary Inspector ... | — | — | 3 |
| Adams, R.—2nd Class Clerk ... | 21 | 18 | 9 |
| Antoine, A.—Supervisor ... | 28 | — | 1 |
| Boucaud, R.—Sanitary Inspector ... | 35 | — | 4 |
| Boxill, E.—Senior Sanitary Inspector (Indoor) ... | — | — | 4 |
| Brathwaite, E.—Sanitary Inspector ... | 5 | — | 1 |
| Carpette, O.—Overseer ... | 84 | 14 | 14 |
| Callender, E.—Sanitary Inspector ... | 70 | — | 10 |
| Castello, G.—Sub-Overseer ... | 28 | — | — |
| Cameron, I.—Sanitary Inspector ... | 21 | — | 11 |
| De Four, H.—Health Education Officer ... | — | — | 14 |
| Davidson, C.—Sanitary Inspector ... | 42 | — | — |
| Du Bois, C.—Sanitary Inspector ... | 42 | 4 | 1 |
| Edwards, R.—Sanitary Inspector ... | 21 | 10 | 6 |
| Forde, G.—Sanitary Inspector ... | — | 3 | 10 |
| Forde, O. E.—Chief Sanitary Inspector ... | 28 | — | — |
| Goodridge, C. F.—Messenger ... | 21 | — | 3 |
| Greenidge, St. A.—Sanitary Inspector ... | 21 | 8 | 7 |
| Holdip, M.—Sanitary Inspector ... | 27 | — | 3 |
| Hodge, L.—Sanitary Inspector ... | 56 | — | 5 |
| Hinkson, G.—Sanitary Inspector ... | — | 20 | $\frac{1}{2}$ |
| Joseph, A.—Scientific Assistant ... | — | — | 2 |
| Khan, V. S.—Sanitary Inspector ... | — | 3 | 14 |
| Langton, E.—2nd Class Clerk ... | 76 | 21 | 4 |
| Marcano, G. R.—Medical Officer of Health ... | — | 21 | 13 |
| Marcial, R. S.—Sanitary Inspector ... | 42 | — | 5 |
| Mitchell, K. I.—Sanitary Inspector ... | 21 | 7 | 10 |
| Nurse, G. W.—Sanitary Inspector ... | — | — | 16 |
| Neranter, A. K.—Sanitary Inspector ... | 21 | 8 | 9 |
| Parris, J. E.—Overseer ... | — | 15 | 12 |
| Perryman, V.—2nd Class Clerk ... | 21 | — | $6\frac{1}{2}$ |
| Rivers, F.—Senior Sanitary Inspector (Outdoor) ... | 56 | 14 | 2 |
| Romain, A.—Deputy Chief San. Insp. (Indoor) ... | 78 | — | 4 |
| Rameshwar, C. J.—Sanitary Inspector ... | 14 | 10 | $3\frac{1}{2}$ |
| Seon, F. E.—Sanitary Inspector ... | — | — | 14 |
| St. Cyr, H.—Sanitary Inspector ... | 14 | — | 3 |
| Sampson, A.—Sanitary Inspector ... | 42 | 14 | 5 |
| Sansavoir, F.—Sub-Overseer ... | 21 | — | 14 |
| Samm, M.—Sub-Overseer ... | — | — | 14 |
| Turney, H.—Sanitary Inspector ... | 28 | 14 | 8 |
| Turner, K.—Sanitary Inspector ... | 91 | 7 | 8 |
| Wilson, A. Senior Clerk ... | 84 | — | 1 |
| Wilkinson, C.—2nd Class Clerk ... | — | — | 2 |
| <i>Special Leave</i> | | | |
| Adams, R.—2nd Class Clerk ... | ... | ... | 61 |
| Langton, E.—2nd Class Clerk ... | ... | ... | 30 |
| <i>Study Leave</i> | | | |
| Holdip, M.—Sanitary Inspector ... | ... | ... | 120 |

Staff—Resignations, Study Leave

RESIGNATIONS, ETC.

Mr. O. E. Forde, Chief Sanitary Inspector, retired from the service of the Corporation on 5th October, 1959.

Mr. C. C. Assing, Deputy Chief Sanitary Inspector, on 19th October, 1959.

Dr. W. C. Dottin, Inspector of Animals and Meat, on 10th June, 1959.

Mr. V. Perryman, 2nd Class Clerk, resigned on 30th September, 1959.

STUDY LEAVE

Grade "A" Sanitary Inspector, M. Holdip, was granted study leave for one year from 3rd September, 1959, to pursue a course in "Health Education" in the United Kingdom.

FINANCIAL

Revenue and Expenditure, 1957-1959

| REVENUE | 1957 | 1958 | 1959 |
|---|---------------------|---------------------|---------------------|
| Revenue collected by the Health Department ... | \$1,012.28 | \$1,218.49 | \$6,616.67 |
| EXPENDITURE | | | |
| Salaries and Allowances ... | 141,223.46 | 150,743.19 | 155,537.75 |
| Superannuation Allowances ... | — | — | 27,382.50 |
| Contributions ... | — | — | 879.00 |
| 4 cts. 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. Phillip 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) ... | 4,260.43 | — | — |
| Arrears of Increments of Salaries to newly appointed Employees (Staff) ... | 720.00 | — | — |
| Wages and Allowances ... | 144,419.16 | 184,281.95 | 195,314.13 |
| Maintenance, Materials, &c. ... | 45,851.96 | 49,000.75 | 29,842.41 |
| | <u>\$336,475.01</u> | <u>\$431,403.97</u> | <u>\$426,058.55</u> |
| Disposal of Night Soil ... | 8,145.67 | 11,659.60 | 9,017.62 |
| Emptying Cesspits ... | 43,924.35 | *49,602.83 | †50,998.43 |
| | <u>\$388,545.03</u> | <u>\$492,666.40</u> | <u>\$486,074.60</u> |

* Emptying of Cesspits—amount recoverable from house owners \$16,437.25 in 1958.

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

ACKNOWLEDGMENT

As I come to the end of yet another annual report one cannot fail to think of those fellow employees who are with me and around me, of those who in the year under report worked with me in the field and in the office, of those who helped to prepare the plans and projects of the Department and who saw to it that they were duly executed, of those who carried out orders and did their allotted share of work, fully and conscientiously, all human beings, flesh and blood, with whom the greater part of one's working life is spent.

As the years roll by and as the staff gets older and more accustomed to each other, the feeling of being the head of one large family grows, and the appreciation and affection and sense of responsibility that that engenders get greater and greater. As in all large families there are times when nerves become frayed and tempers flare up and the enforcement of discipline becomes a necessity, and whilst no opportunity is ever missed to deal with these difficulties I am happy to be able to record the fact that, aided by the system of regular weekly meetings with the pensionable, and periodic conferences with the non-pensionable staff, the machinery of the Department is, on the whole, kept well oiled and running smoothly most of the time.

That the state of the public health has shown no deterioration and that we have been able to maintain the services at a satisfactory level of efficiency is evidence, if evidence were needed, of the devotion to duty and the loyalty of the staff, pensionable and non-pensionable, under the able direction and leadership of the Chief Sanitary Inspector, Mr. O. E. Forde, Cert. R. San. I., for the first three quarters of the year, and Mr. A. Romain, Cert. R. San. I., for the last quarter, and the Deputy Chief Sanitary Inspector (Indoor) Mr. A. Romain, Cert. R. San. I., for the first three quarters of the year and Mr. E. Boxill, Cert. R. San. I., for the last quarter of the year, who, by setting the example of hard, efficient, and conscientious work have been able to get them to pull their full weight admirably, and to work a little harder and stay a little longer whenever that became necessary.

For this I am deeply grateful and I am not unconscious of the determination, the effort, the energy and the enthusiasm of one and all, pensionable and non-pensionable, to attain this end which I commend to the favourable notice of the Local Authority.

There can be detected on occasions a feeling of dissatisfaction and frustration among the pensionable staff of the Department that the amenities and conditions of service enjoyed by the incumbents of similar posts in the Central Government continue to elude the Sanitary Inspectors of the Department and I am respectfully to request the Local Sanitary Authority to make haste to consider these amenities and conditions of service and where possible and feasible to adopt them so that all officers, both central and local, who often work side by side, will be on a basis of parity and the regular and irksome exodus of some of our most capable and best trained men come to an end.

During the year 1959, to be exact on the 5th October, 1959 and on the 19th October, 1959, we lost the services of two outstanding stalwarts of this Department, Mr. O. E. Forde the Chief Sanitary Inspector, and Mr. C. C. Assing the Deputy Chief Sanitary Inspector, who retired after 36 years and 37 years of service, respectively. These two Sanitary Inspectors were among the first to be appointed to the staff of the Public Health Department of the City after it came into being with the establishment of the Local Sanitary Authority in 1917, Mr. O. E. Forde having joined on 1st September, 1923 and Mr. C. C. Assing on 1st September, 1922.

These two Inspectors by reason of their excellent character and exemplary conduct, the intelligence and the ability they displayed, and especially by dint of hard conscientious routine work in the different sections and at the various levels of the Department had risen to the post of Chief Sanitary Inspector and Deputy Chief Sanitary Inspector respectively, which they filled with dignity, honour and distinction and with outstanding success before the age limit forced them to retire from the service of the Corporation. I was fortunate to have been able to avail myself of their wisdom, knowledge, and experience and to have enjoyed their confidence and respect. Because of the acute shortage of technical staff and the added number of vacant posts their resignation had created we were forced to requisition their services for a further period of time until suitable and qualified younger men can be found to fill the existing vacancies and they have accordingly been re-employed on a month-to-month basis.



