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

ADMINISTRATION REPORT

OF THE

PUBLIC HEALTH DEPARTMENT OF THE CITY OF PORT-OF-SPAIN

FOR THE YEAR

1953

BY

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

GOVERNMENT PRINTING OFFICE, TRINIDAD, B.W.I.—1954

WITH THE COMPLIMENTS

OF

THE MEDICAL OFFICER OF HEALTH

ort-of-Spain,
Trinidad, B.W.I.

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

1952-1953

THE CITY COUNCIL

HIS WORSHIP THE MAYOR, COUNCILLOR GEORGE CABRAL, C.B.E., J.P.

Deputy Mayor :

COUNCILLOR R. HAMEL-SMITH

Aldermen :

T. FRANKLYN
C. W. FLETCHER
R. MITCHELL
HON. A. JAMES
HON. RANJIT KUMAR

Councillors :

F. CAESAR
H. CHRYSOSTOM
H. M. COOK
F. T. FARFAN
J. PACKER HUTCHINSON
B. I. LALSINGH
M. LEE LUNG
P. MATHURA
HON. R. QUEVEDO
L. ROSTANT
J. M. SAMPSON
H. SCOTT
C. B. TYWANG

Administration Report of the Public Health Department of the City of Port-of-Spain, Year 1953

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

20th October, 1954

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

SECRETARY, LOCAL AUTHORITY,

SIR,

I have the honour to submit, for the information of the Local Authority, the 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, 1953.

The health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain remained not unsatisfactory and no untoward event of any kind served to disturb the even tenor of the work of the Public Health Department during the year under report. That, however, is the most optimistic note that can be struck. Improvement in the state of the public health, which is the only justification for the steady work and continued efforts of a Public Health Department, has been slow and may very well be attributed to the general improvement attendant upon economic, educational, and social progress, and to the improvement that is to be expected with the onward march of time and the general routine activity of the Department, rather than to any specific measures directed to the amelioration of the public health undertaken during the year under report.

It is true that working in conjunction with Government, and with the help and direction of the Malaria Division of Government a house spraying programme, using DDT solution as insecticide, was undertaken during the first half of the year, but whilst a good deal was achieved in this project there were far too many "missed" houses to insure the result aimed at, due to the lack of enabling legislation which we know now to be a *sine qua non* in any house spraying anti-mosquito programme designed to eradicate the mosquito carrier of disease.

The result was that no sooner had the aedes index been reduced to the low figure compatible with immunity from the spread of infection, it soon rose again, largely through the inevitable seeding of sprayed houses from those that remain unsprayed and to the large numbers of stagnant water containers that seem inevitably to find their way in regular relays on all premises within the limits of the City.

No major works of any kind were undertaken during the year 1953 and the Department is now developing the frame of mind of an indigent patient suffering from a curable ailment, doomed to suffering, despair and disappointment because of lack of funds with which to get the necessary treatment. Fortunately, a wise and paternal Government has long ago decreed that lack of funds should on no account be a bar against anyone getting the treatment appropriate to his ailment.

Unfortunately it has not yet fully dawned on Government, either central or local, that the suffering, despair and misery of human beings who live in unsewered, unwatered, unlighted and insanitated areas can, by judicious spending in these directions, be turned into such health, wealth, and happiness that a lightening of the burden on the economy of the City and of the Colony generally can be made, almost at once, apparent in the consequent saving of expenditure on hospitals, on social welfare schemes, on jails, and on orphanages, &c., &c.

At the time of writing, however, a feeling of hope is growing. Whilst at the end of the year under report the remedy for the improvement of the backward areas of the City seemed remote and uncertain, as I write this report, a Five-Year Plan for the improvement of water supply, for sewerage, for drainage and other major works in these insanitary areas has been prepared and forwarded to Government for approval and for the floating of the loan necessary to finance these works. Whilst much needed improvement and a reasonable standard of public health will be achieved as soon as these works are executed, in the coming year, we hope, the general comprehensive plan, however, for the relaying out of the whole of the Belmont and East Dry River Districts of the City still remains largely a project on paper.

The various sections of the Department continued to function during the year under report with an energy and an enthusiasm that cannot be considered anything but satisfactory, and no effort is spared to inculcate into the staff, pensionable as well as non-pensionable, a sense of the importance of their duties and a realisation of the great benefit that can be conferred on the City, on the Municipality, and on themselves by the regular, unremitting, and conscientious performance of duties which have to be performed, sometimes far away from the Public Health Department, often without supervision, and always, from day to day, with that thoroughness and efficiency that must be exhibited if the success of a health programme is to be achieved and a dangerous, maybe a disastrous, setback in health standards averted.

I am happy to record, for the information of the Council, that, though depleted in so far as the number of sanitary inspectors is concerned—we are short of our normal complement due to resignations, and suitable material for replacement purposes is non-existent—, performance, with a few notable gaps, remained satisfactory, and keenness, goodwill and contentment continued to characterise the daily routine.

In so far as figures are concerned, no change in the area of the City took place during the year under review, the acreage of 2,550 being the same as it was since 1948 when the sea "wherever it is and wherever it is likely to be in the future" was declared to be the southern boundary of the City.

The population of the City is now estimated to be 111,150 souls with a natural increase of 3,391 during the year 1953, and the Colony's mean population is now 678,800, according to the Registrar General's figures. The density of population has reached 44 persons per acre of the City.

The birth rate worked out at 4.048, and the death rate at 997 per 100,000 population. Deaths of infants under one year numbered 157, giving an infant mortality rate of 34.90 per 1,000 live births.

Death rates for specific diseases or specific groups of diseases were in every case lower than those for the previous year except in three important groups at the two extremes of life, viz.: the death rate for diarrhœa and enteritis,—a group of diseases with the greatest incidence in the early years of life—, and the death rates for diseases of the heart and blood vessels and for cancer and malignant diseases,—which affect mostly the later age-periods—, where significant increases were recorded. The former clearly underlines the need for cleaner and better food, and for purer and safer sources of water supply; the latter lays emphasis on the increasing longevity of the citizenry and on the mounting stresses and strains of urban life, which press so heavily on those of advancing years.

A reference to the table "Comparative Summary of Vital Statistics" listed on page 17 demonstrates the fact that in the case of notifiable diseases as a whole, a substantial decline in mortality, i.e. from 111 deaths in 1952 to 75 in 1953, has been recorded.

When dealing with figures there are two adages that we must bear constantly in mind: "figures never lie" and "figures can be made to prove anything" and we must, of course, at all times endeavour to discover "where truth lies", which oftener than not happens to be the midway line. With this reservation I hasten to state that the figures that I have just referred to serve to remind us that the state of the public health continues to improve, but, that there is yet much leeway to be made up to catch up with the much lower figures that are being recorded in other progressive countries in the world, in both temperate and tropical climes.

I feel that I owe it as a duty to the staff who toil with me, and to myself to refer to the building which houses the Public Health Department. We have, as you know, been housed in these premises since 1938 when we were transferred, at my request, from unsuitable and cramped quarters in the old Town Hall. This old building which the Council purchased many years ago with a view to adding to and enclosing within, the compound of the old Town Hall, has deteriorated still further with the passage of the intervening years until today, like many a similar structure within the limits of our City, it is on the point of collapse.

It is with difficulty that it is patched up here, repaired there, added to at this point and extended at the other, in an endeavour to accommodate our expanding staff. Worst of all, in its present state and with the consequent difficulty associated with keeping it "sweet and clean", it does not "exude public health", as a Public Health Department ought to do.

If only I could succeed in impressing upon the Council the urgent necessity to provide us with a building in which proper and adequate accommodation could be made available to both outdoor and indoor sections of the staff, and which would do justice to the public health conscience of the Local Sanitary Authority, I would indeed be a happy man.

During the year under report His Worship the Mayor, Aldermen and Councillors continued their wonted support of the efforts of the Public Health Department to maintain and improve the standard of public health in the Urban Sanitary District and their co-operation and support in all matters affecting the public health have been a source of great encouragement to the Department. In fact, if there is one aspect of the work of the Council on which the attention and scrutiny of its elected representatives are focussed and in which improvement is urgently desired and actively sought, it is that which concerns the health and sanitary condition of the Urban Sanitary District. For this the Department is deeply grateful.

The loyal co-operation, and at times the active help, expected from the two other Departments of the Council, and without which very little of lasting benefit can be achieved, were, as in former years, readily vouchsafed during the year under report, and for this I am to record my heartfelt gratitude to their respective heads, the City Engineer and the Town Clerk.

I have the honour to be,

Sir,

Your obedient servant,

RODERICK MARCANO
Medical Officer of Health

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

No new areas were included within the limits of the City during the year 1953 and the acreage remains the same as it was since 1948 when the Ordinance defining the southern boundary of the City was proclaimed, and as a result of which the 168 acres of land south of Wrightson Road were definitely included within the limits of the City. But it cannot be long now before other areas, like Cascade and St. Ann's, Maraval and Dibé, Ross Lands, the land around upper Belmont Valley Road, upper St. Francois Valley Road around John John and Picton Road, are included. They constitute the environs of the City and they are the logical outlets and lines of expansion of the urban area. I venture the opinion that the Municipality would welcome the inclusion of these areas, but a word of caution is appropriate here : it would not be wise to include these areas until they have been, or are about to be, properly laid out and sanitated in accordance with a comprehensive plan along the lines of the St. James Improvement Scheme.

The blot on the landscape which the Belmont and East Dry River Districts present still remains, but perhaps with just a slight difference: plans for sewering and for supplying water in adequate amounts to these sub-districts, and for making odd improvements here and there, are actually under way, and, together with estimates of probable cost, have been forwarded to Government for approval. The master plan, however, for these sub-districts still lags behind in the doldrums; in the meantime the residents cry aloud and suffer with a sense of frustration and of personal grievance, and with a feeling of hopelessness and of inevitability that gnaws at the very entrails of those of us who know the terrain and recognise the smell of the cesspits and the odour of the stagnant earthen drains, who feel the weight of the mud and slush on our boots and clothes, and who discern the glum faces and forlorn look of housewives executing their daily chores, the listless bodies and anaemic faces of God's little children "creeping unwillingly" to school, or eking out time in carefree play and laughter.

Shanty Town continues to grow and the solid block of shanties both inside and outside the limits of the City now furnishes a first class problem in administration. "To be or not to be" continues to be the question. Every day that passes makes it more difficult to tackle. Six shanties are easier to move away than six hundred.

The reclaimed lands south of Wrightson and Mucurapo Roads continue to present their customary unkempt appearance and to be a source of much anxiety and concern to the Department by reason of the multiplicity of nuisances that they give rise to. Much time and money are wasted in abating nuisances of mosquito breeding, refuse dumping, &c., &c., in cutting down bush and undergrowth, in oiling pools, a waste that could easily be avoided by allocating the areas already earmarked for certain types of business to the various parties concerned, and so permitting them to proceed with their plans for laying out their own individual lands.

Slum Clearance in the south-eastern sections of the City, which had come to a standstill through lack of funds, recovered sufficiently from its state of suspended animation as to secure the erection of two blocks of flats that were completed in the early part of the current year at a cost of about one hundred thousand dollars and, at the time I write, are fully occupied by grateful tenants. And so a cleared area which served as a pasturage for goats and the occasional donkey, and a harbourage for discarded tins, coconut shells, old drums, bits and pieces of wood and litter of all sorts, is now built upon and is providing much needed accommodation for a sorely pressed tenantry.

SANITARY CIRCUMSTANCES

(Water)

The problem of a wholly adequate and always safe water supply remains the burning question of the day and no problem affecting the Municipality is more urgent at the moment.

The sources of water supply remained the same during the year under report: four river and four well sources. No indictment can be levelled against the well sources; with the normal fluctuations that we have learnt to expect and which we know correspond roughly with the time and season of the year "they give readily of the goods in their bosoms". The river sources, however, continued to play at the old game of yielding less just at the very time that there is more to give, due to their constant flooding in times of heavy rain.

The Maraval, St. Ann's and Cascade Rivers flood at the slightest provocation and their waters have consequently to be diverted away from the Reservoir. The difficulty that the Water Engineer and his turncocks have to contend with on these numerous occasions during the rainy season and sometimes even during the dry season can be better imagined than described. I have always marvelled at their dexterity in switching water from one part of the City to the other, even though a sense of disappointment and even resentment wells up inside you that your water is being taken away from you just at the time, perhaps, when you are bathing or washing and need it most.

This story is in the nature of a hardy perennial, but there glimmers a ray of hope. It would appear that we are right on the threshold of securing a satisfactory water supply if plans which have been formulated for augmenting and improving the supply are approved by Government and the loan necessary to start these works floated. It is remarkable, however, in spite of adverse prognostications, how well the well sources maintain their supply both from a point of view of potability and volume.

A very close watch is kept on all sources by regular sampling for bacteriological and chemical analysis and the results published in the table listed below speak for themselves. Whilst we continue to persevere, inevitably of course, with the Maraval, St. Ann's and Cascade Rivers, we continue to hold up any further housing or agricultural development in the catchment areas of the sources seeing that any additional pollution of these sources can, on no account, under any circumstances whatsoever, be permitted. The potential danger of a massive dose of specific pathological organisms that may swamp our purification "defences" and get through the Distribution System to the susceptible consumer, is far too imminent to permit the least chance to be taken.

I hope that I shall be absolved the sin of tedious repetition when I state again that the existing Maraval, St. Ann's and Cascade sources of water supply must be eliminated, and that forthwith.

Bacteriological Examination of Water Supply 1953

Where Derived	No. of samples taken	Results of Examination		
		Safe	Unsatisfactory (presumptive B. Coli present)	Not safe without further treatment (faecal type B. Coli present)
*Cocorite (Wells)	99	96	1	2
Docksite Wells (untreated)	44	42	1	1
†St. Clair Pumping Station	53	45	4	4
‡St. Clair Wells (untreated)	1	—	—	1
‡St. Clair Wells (treated)	53	53	—	—
†Maraval Reservoir	54	50	1	3
§Cascade Reservoir	144	127	8	9
§St. Ann's Reservoir	190	167	12	11
Queen's Park Savannah Well (untreated)	50	49	1	—
‖Picton Reservoir	53	53	—	—
¶Colonial Hospital (Tap)	45	44	1	—
¶143, Charlotte Street (Tap)	43	42	1	—
¶133, Henry Street (Tap)	46	44	2	—
Microbiological Institute (Tap)	68	49	15	4
Furness Withy & Co. (Taps)	131	104	21	6
Masson Hospital (Tap)	50	42	5	3
St. James (Taps)	58	53	4	1
Woodbrook (Taps)	56	54	1	1
City Proper (Taps)	71	59	10	2
East Dry River (Taps)	31	24	1	6
Belmont (Taps)	54	44	5	5
St. Clair (Taps)	44	38	4	2
Wells on Private Property				
**Trinidad and Tobago Electricity Commission, Wrightson Road	47	33	13	1
**Furness Withy & Co., 84, Marine Square	51	—	35	16
Sanitary Laundry, 1, Ajax Street	94	51	16	27
Electric Ice Co., 3, Ariapita Avenue	48	41	7	—
Canning & Co., 60-68, Richmond Street	97	96	1	—
	1,775	1,500	170	105

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.

¶Chlorinated, after having been filtered and chloraminated.

**Not used for drinking purposes.

Chemical Examination of Water

Samples examined by Government Chemist—1953

Where Derived	No. of samples examined	No. of samples found safe
Picton Reservoir	42	42
Maraval Reservoir	11	11
Cascade Reservoir	11	11
St. Ann's Reservoir	11	11
Cocorite Pumping Station	13	13
Cocorite Pumping Station (for salinity)	270	270
Docksite Wells	12	12
Queen's Park Savannah Well	13	13
St. Clair Wells	11	11
	394	394

Drainage and Sewerage

No practical changes of any kind took place under this heading during the year under report. But plans and specifications for sewering the unsewered sections of the City and for laying down a modern treatment plant at the Mucurapo Pumping Station were well advanced at the end of 1953, and as I write have been completed and forwarded to Government for their approval.

Plans also for effecting much needed improvement to poorly drained and so continously damp and almost invariably sodden areas, in the Belmont and East Dry River Districts particularly, were being prepared during the year 1953, and have now been included in the Five Year Plan.

If only it were universally realised how much illness, how much suffering, how much misery, how much economic loss, and how much resentment these far too regular floodings of low-lying areas cause, often with the widespread scattering of waste and faecal waters, with the invasion and swamping of houses and kitchens, and the damaging and undermining of pillars and foundations, I feel sure that no stone would be left unturned and no delay brooked in coming to the help of the hard pressed residents of these areas.

The Department is experiencing no end of difficulty with the privy cesspits in the unsewered areas, and those pits, especially, in the hilly and poorly drained areas in the eastern sections of the City. Tenants have to endure grievous ills when these pits are full and overflowing as they often are, because of the difficulty in persuading the majority of landlords to empty them promptly. It often happens that the Department has to step in and empty on the grounds of public health danger, charging the cost to the premises, but invariably Statutory Notices have to be served, if and when the owners can be located, and the slow cumbrous process of court procedure resorted to before a new pit is dug or a privy repaired or reconstructed.

If only the milk of human kindness could be made to flow a little more freely in this particular respect, much valuable time and energy would be saved.

Scavenging and Refuse Disposal

No stranger who pays a visit to the City of Port-of-Spain and who frequents the beaten paths of the City Proper can honestly say anything else than that the City of Port-of-Spain presents a clean and well kept appearance. To that extent the scavengers of the Council do a good job and let it be stated without fear of contradiction that the job of keeping this City of ours "clean and sweet" is no mean feat. In this particular we have to contend with a variety of householders and business people whose habits differ, and whose sense of cleanliness and tidiness and whose feelings of consideration for their fellow men and for the general good of the City and its citizenry as a whole vary widely. At one end of the scale we have the citizen who is meticulous in his observance of cleanly habits, the refuse from whose house or home is minimal and carefully stored away in a bin of regulation size and material which is deposited in the gateway, as the Regulations prescribe, for it to be picked up and the refuse emptied into the scavenging carts and trucks and taken away to the Dump for ultimate disposal; at the other end of the scale is the citizen who is perverse, who has never had or never will develop a sense of hygiene, who delights in violating every letter of the law, whose refuse, maximal in amount, is scattered helter skelter all over his premises, in the kitchen, in the bath room, in the front and back of his yard, under his house, and if and when he does have a bin it is an old ramshackle box or carton which oftener than not is deposited in the footway for the benefit and delectation of stray dogs, which scatter the refuse on the pavement and in the drains and on the streets in their quest for bits and pieces of bone and other food. In the middle of the scale is the householder or business man who does gather up his refuse and deposits it at one particular point ready to dispose of it, but waits for the dead of night or the early hours of the morning to indulge in an ingrained habit of dumping it on the footways, in the street drains or in the streets themselves, for the sweepers to heap up and the scavengers to collect and place in the carts and trucks to be taken away to the Dump.

In spite of these difficulties, and though he has to contend with citizens with such varying sense of responsibility, the average scavenger does succeed in doing his duty by the Corporation with equanimity, and does maintain the streets, drains, and footways in a reasonably clean and sweet condition. This he does without losing his temper and with a sense of humour that is, at times, astonishing The non-average scavenger, however, often skimps his job, rushes through the daily or nightly task, is often rude and recalcitrant, leaves half the refuse and litter behind, often sweeps it into or deposits it in underground drains and culverts, empties bins, boxes or cartons with reluctance, and refuses to enter a gateway to lift and empty a box or bin unless he is bribed to do so.

I need hardly state that this type of employee does no credit to the Corporation, spoils the work and reputation of the good scavenger, and needs to be trained, instructed, and oftener than not disciplined.

I have often felt and have so stated that people who are selected to work in the scavenging service, as a whole, need careful choosing and should undergo a course of training and instructing, before being committed to the streets, and should serve a period of probation before being made permanent employees.

If, the City Proper is tolerably well scavenged, the outskirts of the City and particularly the outlying areas of the various sub-districts suffer by comparison, and the need here is most urgent seeing that health and sanitation in these areas leave much to be desired. It is precisely in these areas that the bye-laws with respect to scavenging are most difficult to enforce; owner-occupiers are poor, landlords are difficult and unwilling, and tenants are numerous in congested and overcrowded premises with consequent difficulty in fixing responsibility.

In the hilly areas the direct link between scavenger, scavenging truck and householder must all the more closely be established if refuse is not to be dumped indiscriminately in drains, ditches and depressions, on open and vacant lands, in lanes and passages, with the consequent creation of nuisance. This can be achieved only when trucks are small enough and light enough to climb the narrow roads, lanes and passages and so stop immediately outside the entrance to the houses. Heading down refuse to central low-lying points by female scavengers, even if well and truly done does not, in my opinion, succeed in persuading the householder to purchase a bin in which to deposit his refuse for it to be emptied in the scavenging truck, does not prevent the indiscriminate scattering of refuse in odd places, and serves only to disfigure further the already small and narrow streets with heaps of refuse scratched and spread about by dogs, cats and poultry, where it is often left wet and decomposing for a day or more.

I have in previous reports referred to the insanitary habit that has grown up, the blame for which must in part be borne by the scavengers themselves, of depositing at nights before retiring, a full and overflowing dustbin, often uncovered, on the footway to be overturned and the contents scattered about the streets, drains and the footways by dogs and sometimes cats. A more efficient method of fouling pavements and streets, and of disfiguring the fair appearance of our City cannot be conceived. A visitor travelling along our main highways in the early hours of the morning or walking the streets of our suburbs could not but be struck by the way the pavements and the streets are dotted at regular intervals by these insanitary deposits.

This practice is contrary to law, for the bye-laws prescribe that "the dustbin must be deposited within the gateway" and they have only recently been altered, specifically to suit the convenience of the householder by extending by one hour, i.e. up to 8 o'clock in the morning, the time for the placing of the full and covered bin within the gateway, thereby enabling the occupier to be up and ready in time to meet the scavenging carts or trucks as they pass on their daily round.

The Eastern Dump

I regret to state that up to the end of the year under review nothing was done to the Eastern Dump to remedy the unsatisfactory system of refuse disposal to which I have been making constant reference in my annual reports and which I stressed particularly in my report for 1952.

I repeat that the Eastern Dump at the entrance to our City is in a most insanitary state, and that no attempt has been made for a long time, and is not being made now, to do tipping on a "controlled" basis, which is the only proper way to dump refuse on low-lying lands if nuisances of various kinds are to be eliminated. As it is, carts and trucks dump their refuse anywhere and anyhow on this area which bears the name of the Eastern Dump. Flies, mosquitoes and rats abound; they invade the adjoining areas of the City and even find their way to the more remote sections of our City by means of the same carts and trucks which serve as means of transport. All kinds of people find their way on the Dump and use the Dump as an exploring and prospecting ground. There are old metal diggers, tin and bottle collectors, pig food searchers and purveyors; old wood, carton, and old paper vendors, &c., &c. They have undisputed freedom of entry to and unrestricted and uninterrupted use of, the area, without let or hindrance. No one stops them, no one asks them a word of explanation.—No wonder conditions are such as they are.

The Public Health Department stands by and looks on, demonstrating nuisances and giving advice, but beyond advice it cannot go, and that advice oftener than not goes unheeded, or at least for various reasons it is not followed.

All is not lost however. At the moment I write a bulldozer has been loaned to the Council and "levelling" and "draining" are proceeding apace. But "controlled" tipping has not yet been started, without which, of course, amelioration of existing insanitary conditions will only be temporary and recurrence of nuisances will inevitably take place.

SANITARY INSPECTION OF THE DISTRICT

Premises and Occupations controlled by Bye-laws and Regulations

(Food)

During the year under report the bye-laws with respect to the Sale of Foodstuffs passed by the City Council on the 22nd day of April, 1937, approved by the Central Board of Health on the 9th day of August, 1937, and confirmed by the Governor in Council on the 24th day of August, 1937, continued to be enforced as they have been since their enactment, but as the years roll by with a diminishing degree of that relaxation and that consideration which the Council had in mind when they passed the following resolution: "and that it be a direction to the Medical Officer of Health to use his discretion and not enforce the provisions of the bye-laws *unduly* against vendors of fruits, vegetables and greens".

It is clear, I believe, that 16 years is a sufficiently long time to have been allowed to pass to carry out the spirit of that resolution and non-compliance or even partial compliance with the bye-laws can no longer be tolerated. These bye-laws were designed to secure clean and wholesome food, prepared and exposed for sale in a manner that would eliminate contamination, and actually sold by persons who themselves are free from infectious or contagious disease, and whose bodies are so protected by clean and appropriate clothing, that contamination during the process of sale cannot take place or is reduced to minimal proportions.

It is possible to record that steady progress in this regard has been made and that food that is sold on the streets, in parlours, shops, groceries and restaurants, is a tolerably clean and wholesome product, the eating of which is not likely to occasion any disease or cause any abdominal upset and that, coupled with the strict enforcement of the Unsound Food Section of the Public Health Ordinance, the day to day routine of food inspection, the registration of food vendors and foodshops, and the consistent and purposeful work of education in the hygiene of food preparation and food handling, results have been achieved that cannot be considered unsatisfactory.

But there is much more yet to be done. Dotted all over the Urban Sanitary District but especially in the down-town areas of the City Proper there still exist numbers of itinerant food vendors who do not comply with the bye-laws, whose trays are not covered and whose bodies and especially hands and mouths, in appearance and cleanliness, leave much to be desired. Stationed as they usually are around the Wharves and Customs, the stores and warehouses at the very entrance to our City, they play havoc with the good name and reputation for cleanliness of the City and are the cause of much adverse comment by visitors and tourists. Often they make their appearance in the evening and during the night, and feeling secure from the attentions of the food inspectors or policemen, they ply their unwholesome trade without let or hindrance and disfigure our streets and footways with peels, skins, litter and refuse of all kinds.

The food inspectors have been issued firm directions to leave no stone unturned to bring these recalcitrants to book but, on their own, they are often impotent in getting names and addresses without which the machinery of the law cannot be put into operation. In this respect the help of the Police is sorely needed. In fact this whole problem needs to be tackled on the basis of a proper plan which should include the setting aside of a reserved area for the use of itinerant vendors solely, where proper stalls can be erected and operated under conditions of sanitation and hygiene in keeping with the provisions of the bye-laws. Here proper modern up-to-date built up stalls could be erected on which covered trays and receptacles could be placed and foodstuffs, wrapped in suitable paper, exposed for sale in approved containers. Vendors would then be under strict supervision, could be subjected to regular medical examination, and clean running water for the washing of hands, glasses and crockery provided. In these circumstances I feel sure that it would not take the buying public long to know where to go to purchase the clean and wholesome foodstuffs they need, and the elimination of the chronically dirty, obstinate, and perverse food vendor would be thereby secured. If this latter type of food vendor were severely frowned upon by the general public and he and his wares strictly isolated, he would soon come to his senses, for the well known dictum that is often repeated, viz: "it pays to be clean" and "it is the pocket that pinches" remains as true as it ever was in any clean food programme among such a cosmopolitan people like that of the City of Port-of-Spain.

During the year under report the Department, at the instance of the St. John Ambulance Association and in collaboration with the Association and the Health Department of Government, organised a Clean Food Course for operatives in the food trade of the City. Firms dealing in food were circularised and were offered one vacancy in the class to an employee of their choice. Fifty employees of fifty different food establishments took the course which was conducted by officers of the Public Health Department and the Health Department of Government. Opportunity was also taken to carry out, generally, an intensive campaign in clean food handling and clean food preparation by lectures, demonstrations, and radio talks and many firms co-operated with the Department in this venture.

At the end of the Course an examination was held and certificates awarded. The Course started in the middle of April and Professor Steele, Principal of University College, Cardiff and Assistant Director General (Overseas) of the St. John Ambulance Association, presented the certificates to the successful candidates at a function held at the Temporary Town Hall, Princes Building, on 14th August, 1953, at which His Worship the Mayor presided.

The thanks of the Department go out to the St. John Ambulance Association and the Health Department of Government for their ready co-operation and active help in making this project a success. It is proposed to repeat this Course every year or failing that, at regular intervals, giving an opportunity to operatives in every branch and section of the food trade to mark, learn and inwardly digest modern methods of clean food handling. In the meantime the daily routine work relative to this aspect of the work of the Department continued uninterrupted during the year 1953 with results, in figures, that are recorded in the table listed hereunder.

Sale of Foodstuffs Bye-laws

REGISTRATION OF SHOPS, ETC. (1953)

Provision, meat, and spirit shops, restaurants, hotels, refreshment parlours	400
Ground provision and fruit shops	26
Bakehouses	16
Confectionery shops	4
Aerated water factories	2
Other factories	4
Total 1953	452
Total 1952	518

REGISTRATION OF VENDORS (1953)

Bread and cakes	20
Confectionery	15
Cooked food including fries, souse, &c.	71
Ice cream and palets	32
Sweet drinks	11
Vegetables, greens, fruits	116
Miscellaneous	63
Total 1953	328
Total 1952	275

Number of badges issued to itinerant vendors ... ... 328 (297—1952)
Number of oyster vendors licensed under Sale of Oyster Bye-laws 4 (2—1952)

Dairies and Milk Shops (1953)

Sub-Districts	*Cowshed Licences Issued*
City proper	—
East Dry River (unsewered)	—
Belmont (unsewered)	1
Woodbrook (sewered, but premises not all connected with the sewerage system)	3
St. James (unsewered)	18
Total 1953	22
Total 1952	14

Dairymen's Licences (1953)

Dairymen's licences issued to cowkeeper's and other purveyors of milk	19
Dairymen's licences issued to shops, milk bars and refreshment parlours	43
Total 1953	62
Total 1952	73

Milk Vendor's Licences and Badges (1953)

City and Out-districts	*Milk Vendors' Licences*	*Cows Tuberculin Tested*	*Badges*
Port-of-Spain	67	58	33
Out-districts	83	234	85
Total 1953	150	292	118
Total 1952	198	853	151

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED—1953

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

Butter	...pounds	383
Butter (skimmings)	...pounds	342
Butter	...tins	252
Cheese	...boxes	5
	pounds	696½
Confectionery	...cartons	1
	cases	3
Cornmeal	...bags	1
Fish (fresh)	...pounds	359
Fish (preserved)	...barrels	2
	cases	6
	pounds	3,674
	tins	171
Flour	...bags	42
	pounds	200
Flour (sweepings)	...bags	72
Foodstuffs (Miscellaneous)	...bottles	45
	cans	1,111
	cartons	1
Fruits (preserved)	...cans	634
	cases	28
Ice Cream (mix)	...cartons	3
	cans	8
Macaroni	...cartons	1
	pounds	9
Malt	...pounds	500
Meat (fresh)	...pounds	447½
Meat (preserved)	...barrels	18
including bacon, chicken in jelly, corned, iced and pickled beef, roast duck, ham and ham rolls, liver paste, frozen poultry, sausages, tongue	cans	450
	cases	51
	drums	1
	pounds	5,151½
	tierces	3
Milk (preserved)—		
sweetened and	cans	3,291
unsweetened	...cans	83
Oats (rolled)	...cans	1,614
Pastry	...tins	2
Peas	...bags	24
	tins	1
Potatoes	...bags	12
	crates	8
Rice (sweepings)	...bags	1
Salt	...bags	132
Tea	...pounds	2,173
Tomato juice, paste and Vegetable Soup	cartons	2
	...cases	11
	tins	122

Anti-Rat Measures

This work which constitutes one of the main planks in our anti-pest platform, continued unabated during the year under report.

The Anti-Rat Unit is under the direct control of a Sanitary Inspector selected for the purpose, and of the Anti-Rat Overseer whose duties are to make themselves thoroughly acquainted with the latest and most effective methods of rat destruction and rat extermination by being fully conversant with the literature on the subject and also with the help of the various pamphlets, advertisements, samples, &c., &c., that arrive at the Department and which are sent out to them for their perusal and for actual trial by way of experiment in the field.

In addition these two operatives plan the anti-rat work of the Department, as it applies to the whole sanitary district, help with the actual execution of the work, and supervise the foremen and trappers as they work in the various sections of the City.

All workers in the Unit have to undergo a period of training in the means whereby infestation can be recognised, in the classification of species, in the handling of poisons, &c., &c., before they are committed to the field of operation.

More and more we have come to depend on poisoning operations after preliminary surveying and pre-baiting, followed in certain cases by post baiting.

Traps are used occasionally but only as a means of mopping up after the poisoning operation has been completed. Mice traps, however, are often made use of and the Department keeps on hand a supply of mice traps which we lend to the householder with instructions as to baiting which he carries out himself.

No new poisons were used during the year under report. We find "sorexa" to be as successful as it ever was, and far and away the largest number of operations are carried out with this chemical as "poison". The process, however, as is well known, is a slow one, and wherever there are large and troublesome infestations, in warehouses and storehouses particularly, a knockout operation with zinc phosphide or arsenious oxide is resorted to, to be followed up by the customary "sorexa" operation.

It is recognised, of course, by the Public Health Department that there can be no let up in this work, that we must keep on improving and refining our methods of rat destruction and must always be prepared to deal with an emergency such as an outbreak of plague, which may be just around the corner, seeing that we are in such close proximity, by air and sea, with centres where this dangerous infectious disease exists.

It is also a matter of imperative necessity that all steps be taken to bring home to the occupiers and owners of buildings that here again the principle and practice of basic sanitation is an indispensable prerequisite, and that unless the feeding and harbourage of rats are eliminated, all specific measures of rat destruction must fail. Rats are clever mammals and will most certainly pay no attention to baits or traps if they can live in peace and plenty, safe and well fed, in a household which readily provides all the shelter and food they need. Clean houses and clean kitchens particularly, and rat proof buildings generally, are a prime necessity in anti-rat work.

Unfortunately, due to the shortage of housing accommodation and to the lack generally of any planned programme for building on modern lines which has characterised the last fifteen years, old houses which are tumbledown and dilapidated are the order of the day and the safe harbourages which these latter present are numerous and varied and so the work of the Anti-Rat Unit is rendered unduly difficult. The abatement of rat nuisance can be effectively secured only by the proper rat-proofing of houses built on modern lines combined with modern methods directed to the elimination and destruction of rats.

Destruction of Rats and Mice, 1953

Rats caught by trappers	29,992
Rats bought	—
Total	29,992
Mice caught and destroyed	8,636

Examination of Rats by Government Bacteriologist

Rats examined for plague	29,992
Rats found infected with plague	—
Immature rats not examined	—

Species

	Decumanus	*Rattus*	*Total*
Males	8,274	2,360	10,634
Females	15,777	3,581	19,358
Total	24,051	5,941	29,992

Anti-Mosquito Measures

Ever since I have been Medical Officer of Health of the Urban Sanitary District I have been making reference to the importance of the work of the Anti-Mosquito Unit.

I have pointed out in nearly every previous annual report and also by means of several special reports, that malaria and malaria control are not public health problems within the City of Port-of-Spain, and that statement has remained consistently one of fact up to the present day.

Anophelene larvæ and anophelene adults can, of course, be found on a close search of the District and particularly on the outskirts at the eastern, northern, and western limits where the City is in contact with areas which were once highly malarious and in which, thanks to the splendid efforts of the Malaria Division of Government, malaria has now been reduced to a minimum.

But anophelene mosquitoes in such densities as to create anxiety and cause worry and concern as to the possible development of an outbreak of malaria do not occur, in fact are not allowed to occur, because of the day-to-day work of the culex and anophelene section of the Anti-Mosquito Unit.

We are not resting on our oars and we are not unmindful of the possibility of a sudden explosive outbreak of malaria, but as long as we maintain our close collaboration with the work and staff of the Malaria Division in these areas, there is hardly anything to fear.

But the position is quite different when it comes to the question of aedes control. I have been referring consistently in every annual report during the last 10 years (*vide* annual reports for 1942-1952) that the species of mosquito known as aedes aegypti is very prevalent within the limits of the City and its environs and that action is necessary to reduce the aedes index, if we are to enjoy any degree of safety from a possible outbreak of yellow fever if and when infection were to be introduced into the Colony. I have referred to the fact that more and more funds, more equipment, and more staff were necessary for this work.

On my return from the 13th Pan American Conference held at Ciudad Trujillo in September, 1950, I stressed the fact that this work must be prosecuted in dead earnest and must be intensified. and the aedes section of the Anti-Mosquito Unit was alerted and geared with the men and material then at its disposal to this end. At that time larvicidal work was the order of the day but it soon became clear that larvicidal work alone could not effect the permanent reduction of the aedes index. It is our experience that even when keen, willing, and conscientious workers, by consistent and intensive efforts, had reduced the index in any particular area to zero, it was not long before it rose again due to the continuous and recurrent relays of fresh containers, of the tin and bottle variety particularly, that made their regular appearance in nearly every yard within the limits of the City, but particularly in the poorer and least sanitated areas on the outskirts of the City. Realising the difficulty in getting householders to co-operate quickly and efficiently in eliminating these potential and often actual breeding grounds and how slow and cumbrous was the machinery of the law, we organised a clearing gang whose duty it was to go from house to house and clear premises of tins, bottles, coconut shells, old tyres, bits and pieces of crockery, old and useless motor car parts, &c., but this gang was too small for a task which proved to be enormous and stupendous and the aedes index continued to fluctuate but remained high in these latter areas especially. It then became superlatively clear that a house spraying campaign was an absolute necessity and with the kind help and advice of the Caribbean representative of the Pan American Sanitary Bureau, and with the active co-operation of the Malaria Division of the Health Department of Government whose spraying teams, with more practice and more experience in the field, worked side by side with the spraying teams of the Department organised for the purpose, a house spraying campaign began in January, 1953, under the immediate direction, supervision and control of the Malaria Division of Government. The project was completed in July, 1953, and a few relevant figures are appended n the table listed hereunder. Analysis of this table demonstrates the fact that only 11,577 houses out of a possible 16,273 were permitted to be sprayed by occupiers or owners, and the objections, inconveniences and even obstructions put in the way of the spraying teams were legion. The majority of these were, of course, verbal on the spot, but written specimens such as the following were not infrequent:—

> "There is no yellow fever in the Colony and I do not see the necessity to have my premises sprayed."
>
> "We have just finished repainting and repairing our house and at present are not annoyed by any mosquitoes, sandflies or flies."
>
> "We should be glad if you would inform us whether the recent spraying of houses with DDT solution was carried out on a certificate from you, pursuant to the provisions of section 117 of the Public Health Ordinance."

The result of all this was that no sooner had the index been reduced, it almost immediately started to rise again, the unsprayed premises serving without a doubt, to seed premises which were recently sprayed. The result of the project could not, therefore, be considered satisfactory and it became abundantly clear that legislation to sanction the compulsory spraying of all buildings in the Urban Sanitary District was an absolute necessity.

Seeing then that larvicidal work only could be undertaken during the latter half of the year under report, it was considered an absolute necessity to start residual DDT house spraying early in the new year 1954, this, with the advice and approval of the Malaria Division of the Health Department, but this time, without the active help of its spraying teams who were now actively engaged in similar operations in the adjoining as well as the more remote parts of the Colony.

At the end of the year under report, all was set to commence the second cycle of residual DDT spraying of buildings, but still with the handicap of lack of enabling legislation.

DDT RESIDUAL SPRAYING OF PORT-OF-SPAIN (CITY COUNCIL)
From 12th January to 31st July, 1953

Date	Houses Notified	Houses Sprayed	Rooms Sprayed	Solution used	Absentees	Objections	Kitchens sprayed	Latrines sprayed	Stables sprayed	Unsprayed sick	Remarks
12/1–31/1/53	1,649	1,410	9,282	3,853	174	62	682	994	107	—	*These houses (60 sick) were recorded separately on the supervisors' report sheets.
2/2–28/2/53	2,153	1,682	14,755	4,776	292	149	583	898	42	—	
2/3–31/3/53	2,024	1,460	16,060	4,645	381	184	450	833	16	—	
1/4–30/4/53	1,408	1,181	12,668	3,516	180	39	454	1,260	1	—	
1/5–30/5/53	1,651	1,391	8,842	4,221	194	46	731	1,334	2	—	
3/6–30/6/53	2,217	1,887	10,674	5,062	247	83	1,232	1,523	4	—	
1/7–31/7/53	2,853	2,566	11,251	5,503	245	42	2,323	2,144	1	—	
TOTAL ...	13,955	11,577	83,532	31,576	1,713	605	6,465	8,986	173	60*	

TABLE 2

Dates	Area	Absentees	Objections
12/1–31/1/53	Cocorite—St. James	174	62
2/2–28/2/53	Lower Woodbrook	292	149
2/3–31/3/53	St. Clair—New Town	381	184
1/4–30/4/53	Port-of-Spain Proper	180	39
1/5–30/5/53	Port-of-Spain Proper and South Quay	194	46
3/6–30/6/53	Belmont	247	83
1/7–31/7/53	East Dry River—St. Joseph Road Playground	245	42

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

INSPECTION OF EAVES, GUTTERS, ETC., 1953

Number of inspections of premises	65,933
Number of inspections of eaves gutters	17,703
Number of occasions found in good order	14,055
Number of occasions found defective	3,648
Number of occasions found containing water only	1,488
Number of occasions found containing water and larvae	702
*Number of occasions mosquito larvae were found in tubs, anti-formicas, tin cans, &c.	7,796
Yards cleared of receptacles	4,173

N.B.—*Occasions on which mosquito larvae were found by sanitary inspectors, during the course of 93,056 inspections of premises, are included in above figure.

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

The story of gloom and despair which I have been relating for the past 10 years must again be recorded in this year's review of the housing situation. No amelioration of any substantial nature has taken place and it may truly be stated that it is difficult now to see how and where the situation can be ameliorated, unless and until a comprehensive long term housing project is undertaken with a definite target to achieve every year.

In so far as dwellings for the working classes are concerned, with the solitary exception of two blocks of flats which were begun to be erected by the Planning and Housing Commission in the latter part of the year under review and were completed early in the current year, no additional accommodation whatsoever has been made available during the year under report.

As things are at the moment no private landlord within the limits of the City is prepared to undertake the erection of dwellings for members of the working classes because, as he has stated time and again, it is uneconomic to do so, in view of the high price for building materials, the cost of labour, increasing rates and charges, and last but not least rent restriction, and this latter point must be conceded him, seeing that the blocks of flats which have been built by the Planning and Housing Commission cannot be let to the particular type of tenant they are built for at a rental that can be considered economic, and they have, perforce, to be subsidised by contributions from general revenue.

In the circumstances it is not difficult to form a mental picture of the state of congestion and disrepair of working and middle class property, seeing that houses built as long ago as 40 to 50 years have to do duty for a rapidly increasing population without the opportunity to secure most needed repair, because of the unwillingness and sometimes inability, of owners to repair old houses for tenants who show no disposition whatever to take care of other people's property.

All dwelling houses in the Urban Sanitary District with the possible exception of those in St. Clair, and a certain number in Woodbrook and St. James are overcrowded with occupants, are in a state of disrepair, leaking, cracking, crumbling, and in some cases actually falling to pieces in parts.

In the downtown areas and particularly in that section of the City which has been declared a slum clearance area but in which very little clearance has actually taken place, a few houses have collapsed and it is only with difficulty that tenants have escaped with their lives. Barrack ranges, often mercifully hidden from view by reconstructed business places fronting the street, and dwellings occupied as barracks still persist in fair numbers and what we had hoped would have been eliminated years ago, still remain a disturbing blot on the landscape. Kitchens, when they do exist, are often dilapidated and crumbling, sanitary conveniences are out of repair with defective flush tanks, foul and insanitary, and yards are littered with refuse, dirty, damp, and depressed. Add to these conditions the fact that in the unsewered areas the privy cesspit in the yard replaces the water closet in the sewered areas and that flooding of low-lying premises is a common happening here in the rainy season, and it is not difficult to conjure up a mental picture of how much suffering, how much misery, and how much ill health are being endured by the residents of these tenement areas.

The work of the Public Health Department is therefore rendered extremely onerous in these circumstances and the work becomes doubly difficult because of the strained relations generally, that now obtain between landlord and tenant. The tenant feels hurt and frustrated because landlord, if and when he can be found, will provide no amenities and effect no repairs, except in those instances where we have succeeded in having served him with a summons to appear in Court and he has been ordered to do the necessary work; the landlord uses every device at his disposal to eject tenants from property which needs reconstruction, for which plans have been passed and which he is ready and willing to reconstruct, if he can succeed in getting the tenants to vacate the premises.

With these two opposing factions the Sanitary Inspector of the Department has his hands full in his efforts to secure clean yards, conveniences that are sanitary and dwellings that can give shelter from the ravages of the weather and invariably the slow and cumbrous process of the law has to be resorted to if a pit is to be emptied, conveniences put in good working order, cracks in a wall repaired or leaks in the roof stopped. And it may be weeks before any work is done seeing that the owner, if and when he has been found, usually adopts every means at his disposal to obviate service of a Notice or the acceptance of a summons to appear in Court.

If none or just a few dwelling houses have been erected during 1953, quite a number of buildings for commercial purposes have been constructed and in the business section of our City landlords and merchants have put to good use the trading profits of the War Years and have either repaired or reconstructed the property they own in this part of the City with the result that stores, groceries, shops and business houses generally present a modern streamlined appearance that compares not unfavourably with other large cities in the temperate and tropical world.

Every opportunity is seized when repairs or reconstruction takes place to secure sufficient light and air and modern amenities for workers, and I am pleased to be able to record that owners and employers never fail to comply with our requirements, in so far as the latter are concerned, even when they are slow to appreciate the value of light and air, when it is a question of sacrificing some building space to secure the former.

Shanty Town

I cannot conclude this section without further reference to Shanty Town. This settlement which defaces the eastern entrance to our City and lies just within and just outside the eastern limits of our City, is occupied in the main by tenants displaced from former slum areas, though some of the residents here are people of substance who even own property in other parts of the City, but who prefer to live in Shanty Town because of the "amenities" of an insanitary shack, erected sometimes at little cost by the local "shanty" contractor, of no rent or rates to pay, and of the close proximity to the Dump and to open and swampy lands from which tins and bottles can be collected, and where pigs can roam about freely and breed and rear their young in comparative security and in defiance of the law.

Shanty Town continues to grow and every day and every night new shacks make their appearance, electric light has been laid on, shops and parlours have sprung up to serve the settlement, and a resolution by the Council to supply water has been met in part. But no sanitary conveniences exist, no drainage channels, no running water, and, of course, there is no scavenging and rat, fly and mosquito nuisance abound. When only six shacks existed within the limits of the City on the south-western section of the Dump, I reported to the Council recommending immediate action but after full and frank discussion no definite decision was arrived at; from then on the situation grew progressively worse, many more shacks were erected, and are still being erected and the population has increased by leaps and bounds until at the moment I write 179 shacks with a population of 374 souls, 279 adults and 95 children, adorn this section of the City.

This is a problem that needs immediate and firm handling, and there can be no doubt that there are many difficulties in the way, but peremptory displacement of dwellers without the provision of alternative accommodation is not likely to lead to a solution. Much as it is urgent and necessary, I see, therefore, little chance of getting rid of this eyesore in the current year or even in the year following, but I must again sound a note of warning: Delay is dangerous, here may very well be the starting point of an epidemic.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

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

	1921	1951	1952	1953
Area of City—acres (pastures and open spaces included)	1,793	2,550	2,550	2,550
Estimated population (mean) ...	61,386	107,009	109,384	111,150
Density of population (persons per acre)	34.2	42	43	44
Total live births	1,687	3,982	4,115	4,499
Birth rate	2,728	3,723	3,761	4,048
Still births registered	154	193	207	225
*Still birth rate	91.3	48.47	50.30	50.01
Total deaths	1,659	1,243	1,094	1,108
Death rate	2,683	1,162	1,000	997
Natural increase of population ...	28	2,739	3,021	3,391
Deaths under one year	287	167	137	157
*Infant mortality rate	170.12	41.94	33.29	34.90
*Maternal mortality rate	—	2.51	1.70	2.22
Death Rates :				
Notifiable infectious diseases	621	113	111	75
Pulmonary tuberculosis	249	25	26	18
Tuberculosis (other forms)	26	7	11	5
Enteric fever	125	5	7	3
Pneumonia (all forms)	197	75	66	47
Bronchitis	136	21	16	14
Diphtheria	2	1	1	1
Malaria	89	1	—	—
Syphilis	21	10	5	6
Diarrhoea and enteritis	191	39	36	51
Influenza	26	4	—	—
Ankylostomiasis	15	—	—	1
Bright's disease and nephritis ...	209	27	25	22
Diseases of the heart and blood vessels	265	295	226	269
Diseases of the nervous system including cerebral haemorrhage	170	141	129	94
Cancer and other malignant diseases ...	63	94	82	102

*Per 1,000 births.
Census population of City—April, 1946: 93,198.
Colony's Mean Population: 678,300.

Acreage and Population

No addition to the acreage of the City occurred during the year under report and the number of acres enclosed within the City still stands at 2,550, the open space occupied by the Queen's Park Savannah comprising 279 acres.

The 168 acres of reclaimed lands south of Wrightson Road, including those now occupied by the Kings Wharf and Dock Site Areas and which now definitely form part and parcel of the City, "the sea wherever it is and wherever it is likely to be in the future", as defined by Ordinance, being the southern boundary of the City, remain so far the latest addition to the Municipal Area.

Seeing, however, that it is becoming increasingly clear that Government expects us to assist in supplying essential services, particularly health services in the areas immediately adjoining, especially in the suburbs of Cascade, St. Ann's and Maraval, in Ross Lands and Isaac Terrace in St. James, and also in those areas outside the eastern limits of the City adjoining the proposed new municipal area of Barataria, as recommended by the Spurling Committee, it is not unlikely that extension of the City's limits will take place in the not too distant future.

Seeing that in 1917 the area enclosed within the City comprised 1,793 acres, the City has, therefore, increased its acreage by 757 acres in 37 years.

The mean population of the City, i.e. the population at the end of June, 1953, was estimated to be 111,150, an increase of 1,766 souls on the figure for 1952 which was 109,384. The natural increase of population, however, worked out at 3,021 souls as compared with 2,739 souls in 1952.

The estimated mean population is the figure on which all rates, morbidity as well as mortality, are calculated for the year.

The distribution of the estimated mean population in the various sub-districts of the City was calculated to be as follows:

City Proper 38,242; East Dry River 24,670; Belmont 19,219; Woodbrook 14,704; St. James 13,051; St. Clair 1,864. It is fully recognised, of course, that these latter figures do not by any means represent the actual resident population of these sub-districts, but they do furnish a rough estimate of the population on which various rates are worked out and they at least follow the time honoured custom of dividing the City into these well known sub-districts which were at one time outside the limits of the City but which, one by one, have been included within the City retaining their original names as they came in. Their limits, for purposes of convenience, are arbitrarily defined.

It is proposed, however, for the purpose of greater accuracy, to distribute the estimated total population of the City among the various Wards seeing that these Wards of the City are quite clearly and definitely defined by section 7 of the Port-of-Spain Corporation Ordinance. This, however, cannot be done with any degree of accuracy before the next census year which should be 1956.

The Census population of the City was found to be as follows: for the year 1921, 61,580; for in the year 1930, 70,334; for the year 1946, 93,198.

Births and Birth Rates

Four thousand four hundred and ninety-nine (4,499) live births occurring at premises within the limits of the City were registered at the Public Health Department during the year 1953.

This represents the largest number of live births recorded in the annals of the history of the Local Sanitary Authority which dates back to January, 1917 when the Authority came into being as a result of the proclamation of the Public Health Ordinance, Ch. 12. No. 4. The birth rate was calculated to be 4,048 per 100,000 population which again is the highest birth rate ever to be recorded for the City of Port-of-Spain. In the year 1946, the census year, 4,133 births were registered but the highest birth rate previously recorded was in 1947 when the rate was 4,251 per 100,000 population. From 1947 onwards a gradual lowering of the birth rate had been taking place; but this apparently came to a stop last year 1952 when a slight rise was recorded and this year 1953, when the rise in the birth rate has been substantial.

This rising birth rate coupled as it is with a falling death rate is sure to give rise to the customary evil foreboding on the part of statisticians and economists and we are certain to hear the perennial cry that the panacea for all our ills is artificial birth control. Suffice it to say that quite contrary views are held by a large and important group of scientists, to such an extent that the United Nations Organisation, not more than three years ago, refused to endorse artificial birth control as an integral part of its official policy when discussing this important matter of rising birth rates and falling death rates in certain regions of the World.

Deaths and Death Rates

Eleven hundred and eight (1,108) deaths were registered at the Public Health Department during the year 1953, as having occurred among residents of the City, or more accurately, as having occurred at addresses within the limits of the City, 14 more than the corresponding number 1,094 for the year 1952. The Department appreciates fully the significance of the fact that many people who die at addresses within the City have never actually lived for any length of time in the City, but stayed with friends or relatives in the City for the purpose of receiving treatment or of undergoing a period of convalescence, or whilst waiting a day or two for a vacant bed at the Colonial Hospital to which they were seeking admission; but because of the difficulty inherent in the problem itself, and due occasionally to the shortage of staff, found itself unable to make the necessary correction. With the issue, however, of a new form of death certificate which took effect from the beginning of the current year and in which practitioners are directed to clarify the point by stating the "usual residence", i.e. for more than six months, "of the deceased person" this question of permanent place of residence ought to settle itself.

Though more deaths were recorded in 1953, because of the increased estimated population the death rate for 1953 worked out to be 997 per 100,000 as compared with 1,000 per 100,000 population in 1952. This figure is low and cannot be considered unsatisfactory.

Since the year 1942 when a death rate of 1930 per 100,000 was recorded, the death rate has been falling consistently and represents the logical outcome of improved and improving environmental hygiene, of better personal health, of improved hospital and social services and an earlier resort to them, of better health administration, and a greater consciousness generally of the value of good health and clean living.

As a matter of fact if anything can serve to underline the value of public health and sanitary services this falling death rate, in the circumstances in which it has occurred surely does, for it cannot be denied that the last few years have seen occasional shortages of essential foodstuffs, a high and increasing cost of living index, mounting economic difficulties, and added stresses and strains due to the increasing complexity of urban life.

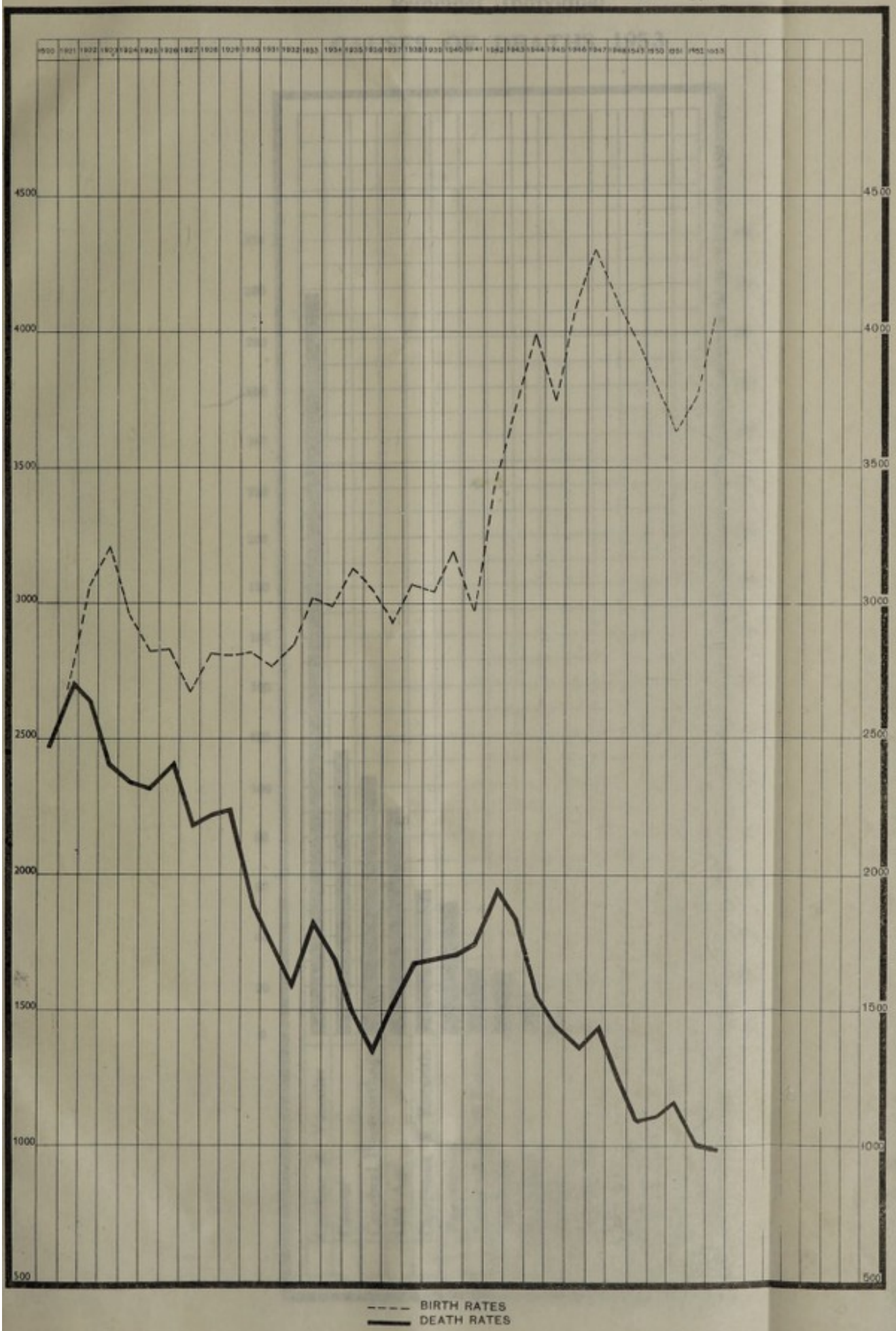
In so far as the six sub-districts of the City are concerned analysis of the Table hereunder listed demonstrates the fact that the largest number of deaths, 260, occurred in the East Dry River Sub-District and if the deaths occurring in the Belmont Sub-District are added to this, it will be seen that just under one half, 444, of the total number 1,108 occurred in the area to the east of the Dry River.

There is no need to repeat myself here; no other result can be expected for these areas are too well known for their congestion and overcrowding, for the general poverty and ill health of their residents, and for their insanitation generally, to which I have been making reference in nearly every previous annual report. If these figures cannot stir our conscience and initiate a call to action, nothing ever will.

The figure of 314 deaths in St. James includes 185 deaths which occurred during the year under report in the House of Refuge which is situated in this sub-district. I need hardly state that here are housed old and infirm people from all over the Colony, who die at the rate of one every two days.

Births 1953				Deaths 1953			
Males	Females	Both Sexes	Birth Rate per 100,000 population	Males	Females	Both Sexes	Death Rate per 100,000 population
2,256	2,243	4,499	4,048	572	536	1,108	997

Chart A
Port of Spain
Birth Rates and Death Rates per 100,000 Population 1920 – 1953



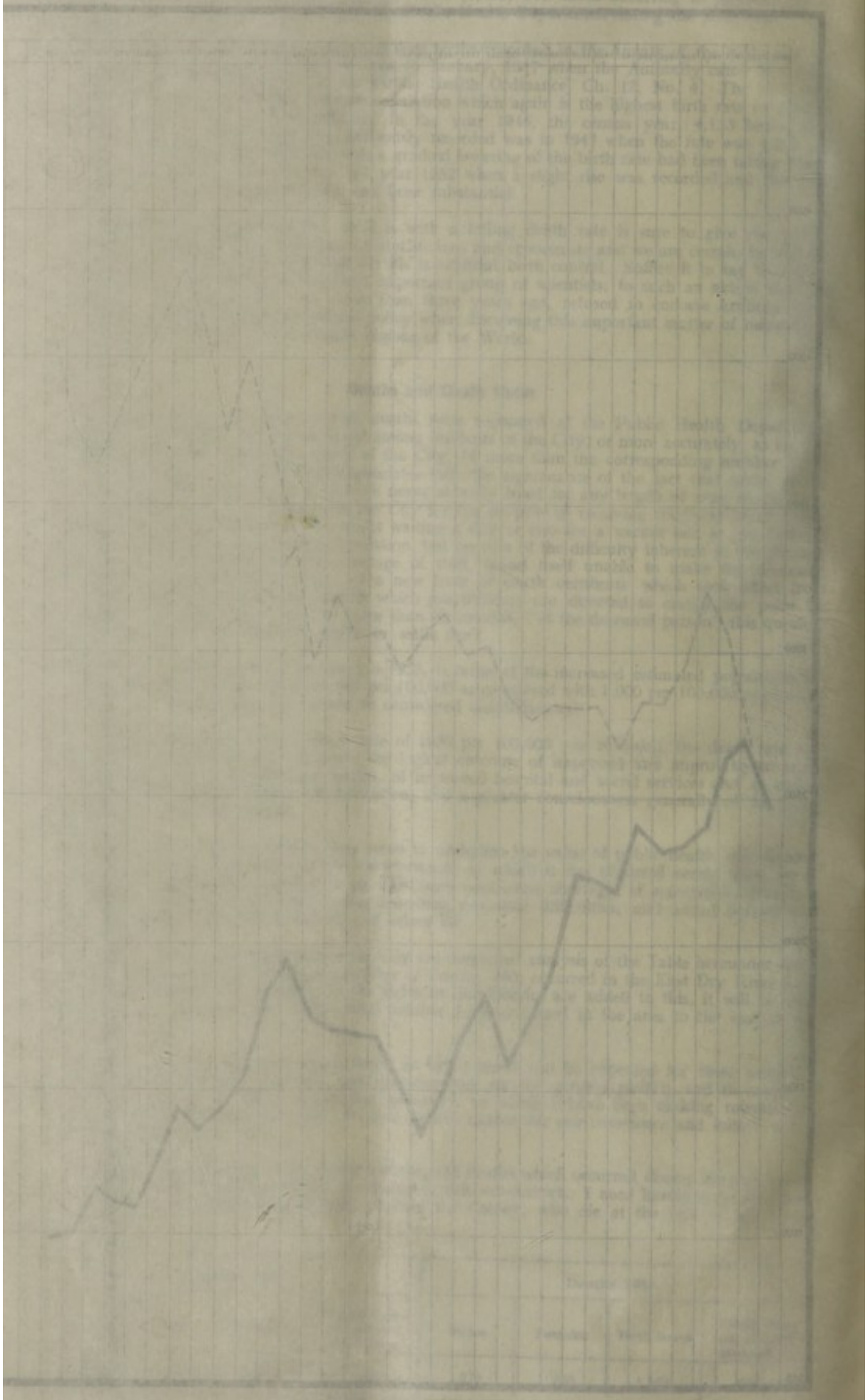


Chart B
Port-of-Spain

Principal Individual

CAUSES OF DEATHS 1953

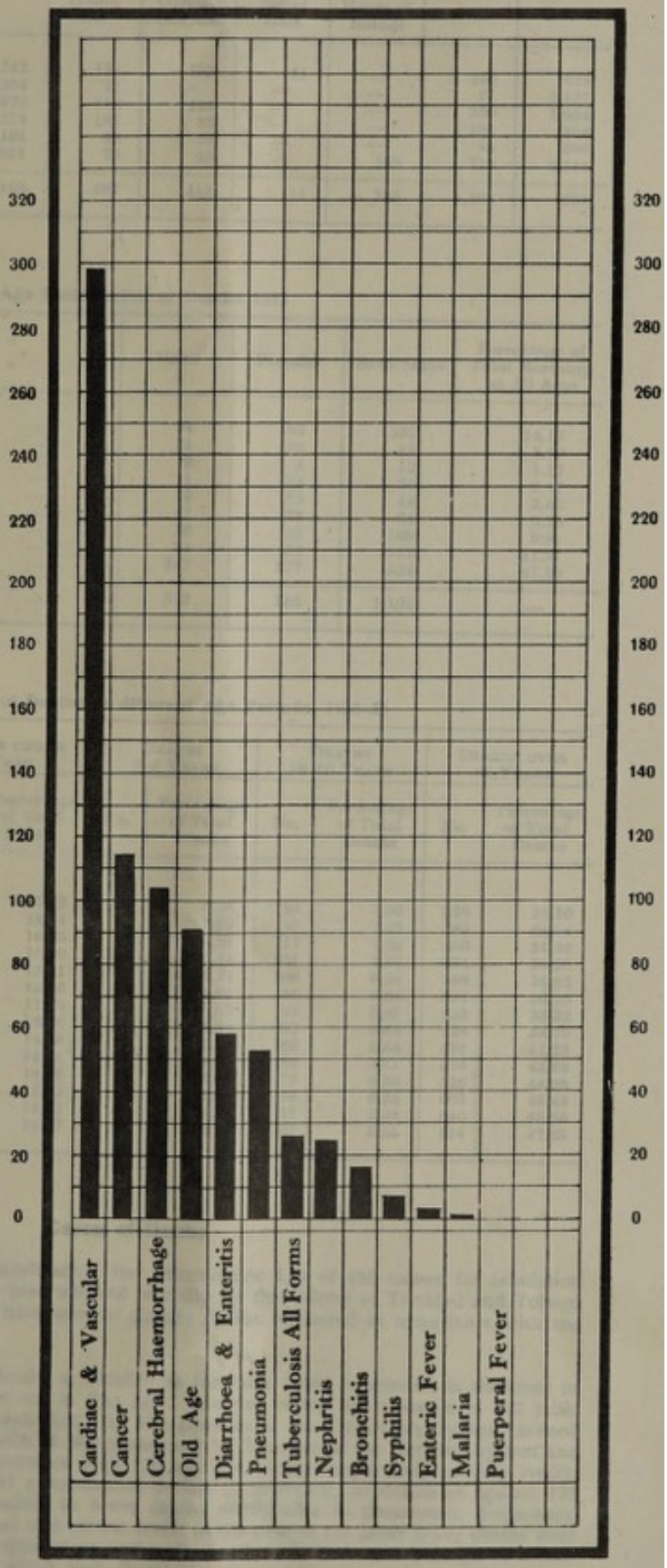


Chart B
Port-of-Spain

Principal Individual

CAUSES OF DEATHS 1954

Deaths in Sub-Districts of the City 1953

Sub-District	Mean Population	Deaths				Total Deaths Sub-Districts	Rate per 100,000 population
		Place of Occurrence					
		Home, &c.	Colonial Hospital	Royal Gaol	House of Refuge		
City Proper	38,242	124	105	11	—	240	628
St. Clair	1,864	21	—	—	—	21	1,127
East Dry River	24,670	116	144	—	—	260	1,054
Belmont	19,219	101	83	—	—	184	958
Woodbrook	14,104	56	28	—	—	84	596
St. James	13,051	79	55	—	185	319	2,444
Total	111,150	497	415	11	185	1,108	997

Age Distribution of Deaths 1953

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	94	63	157	14.17
1– 5 years...	21	20	41	3.70
6–10 do.	9	4	13	1.17
11–20 do.	11	13	24	2.17
21–30 do.	19	25	44	3.97
31–40 do.	41	23	64	5.78
41–50 do.	56	53	109	9.84
51–60 do.	74	58	132	11.91
Over 60 years	247	277	524	47.29
Total	572	536	1,108	—

Comparison of Deaths at different Age Periods, 1928-53

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	5.48	131	7.04	674	36.20
1944 ...	1,620	248	15.31	77	4.75	106	6.54	598	36.92
1945 ...	1,526	239	15.66	71	4.65	86	5.64	561	36.76
1946 ...	1,396	241	17.26	77	5.52	95	6.81	493	35.32
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

Causes of Deaths

The International Statistical Classification, the Intermediate List of 150 causes for tabulation of morbidity and mortality, has now been adopted officially for the Colony of Trinidad and Tobago and all Public Health Departments have now to classify deaths registered in accordance with the terms of this List.

The classification of causes of death, as detailed in the table listed hereunder, is therefore in accordance with the cause groups set out in that List. Analysis of the figure shown in this table demonstrates once more the well known fact that VII Diseases of the Circulatory System claimed the largest number of victims, 299, with II Neoplasms and VI Diseases of the Nervous System and Sensory Organs next in order of importance with 120 and 104 victims respectively to their credit. Notifiable Infectious Diseases showed a substantial decline in mortality, 83 deaths as against 121 registered in 1952. This was due mainly to fewer deaths attributable to pneumonia, pulmonary tuberculosis, tuberculosis (other forms) and enteric fever; in the case of the latter fewer deaths were recorded than in the year before, in spite of an outbreak of enteric fever in the Borough of Arima during the last quarter of the year, which had, inevitably, the usual repercussions in the City.

Causes of Deaths 1953—(International Classification)

Intermediate List No.	Cause Groups	Detailed List No.	Total
	I—Infective and Parasitic Diseases		
A 1	Tuberculosis of respiratory system	001–008	20
A 2	Tuberculosis of meninges and central nervous system	010	5
A 3	Tuberculosis of intestines, peritoneum and mesenteric glands	011	—
A 4	Tuberculosis of bones and joints	012	1
A 5	Tuberculosis other forms:		
	02 All other forms	014, 016–019	—
A 6	Congenital Syphillis	020	—
A 8	Tabes Dorsalis	024	1
A10	All other syphillis	026–029	7
A12	Typhoid fever	040	3
A16	Dysentery, all forms:		
	01 Bacillary dysentery	045	3
	03 Other unspecified forms of dysentery	047, 048	—
A20	Septicaemia and pyaemia	053	13
A21	Diphtheria	055	1
A23	Meningococcal Infections	057	1
A26	Tetanus	061	2
A41	Ankylostomiasis	129	1
A43	All other diseases classified as infective and parasitic:		
	01 Lymphogranuloma venereum	037	—
	02 Granuloma inguinale, venereal	038	—
	25 All other diseases classified as infective and parasitic	132–134	—
	II—Neoplasms		
A44	Malignant neoplasm of buccal cavity and pharynx	140–148	1
A45	Malignant neoplasm of oesophagus	150	5
A46	Malignant neoplasm of stomach	151	20
A47	Malignant neoplasm of intestine, except rectum	152, 153	10
A48	Malignant neoplasm of rectum	154	4
A49	Malignant neoplasm of larynx	161	3
A50	Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	162, 163	3
A51	Malignant neoplasm of breast	170	15
A52	Malignant neoplasm of cervix uteri	171	10
A53	Malignant neoplasm of other unspecified parts of uterus	172–174	14
A54	Malignant neoplasm of prostate	177	2
A55	Malignant neoplasm of skin	190–191	2
A56	Malignant neoplasm of bone and connective tissue	196–197	2
A57	Malignant neoplsam of all other and unspecified sites	155–160 175, 176 198, 199 204	17
A58	Leukaemia and Aleukaemia	200–203 205	4
A59	Lymphosarcoma and other neoplasms of lymphatic system	210–239	1
A60	Benign neoplasms and neoplasms of unspecified nature		7
	III—Allergic, Endocrine System, Metabolic and Nutritional Diseases		
A62	Thyrotoxicosis with or without goitre	252	1
A63	Diabetes mellitus	260	15
A64	Avitaminosis and other deficiency states:		
	05 Other deficiency states	283–286	5
	IV—Diseases of the Blood and Blood Forming Organs		
A65	Anaemias:		
	01 Pernicious and other hyperchromic anaemias	290	2
	03 Other specified and unspecified anaemias	292, 293	5
A66	Allergic disorders, all other endocrine, metabolic and blood diseases:		
	01 Asthma	241	6
	02 All other allergic disorders, endocrine, metabolic and blood diseases	253	—
	V—Mental, Psychoneurotic and Personality Disorders		
A68	Psychoneuroses and disorders of personality	310–324 326	1
	VI—Diseases of the Nervous System and Sensory Organs		
A70	Vascular lesions affecting central nervous system	330–334	85
A71	Nonmeningococcal meningitis	340	7
A72	Multiple sclerosis	345	—
A73	Epilepsy	353	4
A78	All other diseases of the nervous system and sense organs	341–344 350–352 354–357 360–369 395–398	8
	VII—Diseases of the Circulatory System		
A80	Chronic rheumatic heart disease	410–416	2
A81	Arteriosclerotic and degenerative heart disease	420–422	150
A82	Other diseases of the heart	430–434	71
A83	Hypertension with heart disease	440–443	13
A84	Hypertension without mention of heart	444–447	17
A85	Diseases of arteries	450–456	44
A86	Other diseases of the circulatory system	460–468	2

Causes of Death—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	VIII—Diseases of the Respiratory System		
A89	Lobar pneumonia	490	8
A90	Broncho pneumonia	491	36
A91	Primary atypical, other, and unspecified pneumonia	492, 493	8
A93	Bronchitis, chronic and unqualified	501, 502	16
A95	Empyema and abscess of lung	518, 521	2
A96	Pleurisy	519	6
A97	02 All other respiratory diseases	511–517 520–522 524–527	16
	IX—Diseases of the Digestive System		
A99	Ulcer of stomach	540	2
A100	Ulcer of duodenum	541	—
A101	Gastritis and duodenitis	543	3
A102	Appendicitis	550–553	2
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	36
	02 Gastro enteritis and colitis, ages 2 years and over	571.1	22
	03 Chronic Enteritis and ulcerative colitis	572	1
A105	Cirrhosis of Liver	581	17
A106	02 Cholecystitis without mention of calculi	585	1
A107	Other diseases of digestive system	536–539 542–544 545 573–580 582–583 586–587	20
	X—Diseases of the Genito-Urinary System		
A108	Acute Nephritis	590	4
A109	Chronic and other unspecified nephritis	591–594	21
A110	Infections of kidneys	600	5
A111	Calculi of urinary system	602–604	1
A112	Hyperplasia of prostate	610	6
A114	03 All other diseases of the genito-urinary system	601–603 605–609 611, 612 614–617 622–623 635–637	2
	XI—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium		
A116	01 Puerperal eclampsia	685	4
A117	01 Placenta praevia	643	2
A119	Abortion with sepsis	651	3
A120	04 Complications of pregnancy, childbirth and the puerperium	646–648	1
	XII—Diseases of the Skin and Cellular Tissues		
A121	Infections of skin and subcutaneous tissue	690–698	5
	XIII—Diseases of the Bones and Organs of Movement		
A122	Arthritis and spondylitis	720–725	4
A123	Rheumatism unspecified	726–727	—
A126	All other diseases of the skin and musculoskeletal system:		
	01 Chronic ulcer of skin	715	1
	02 All other diseases of skin	716	1
	XIV—Congenital Malformations		
A127	Spina bifida and meningocele	751	1
A128	Congenital malformation of Circulatory System	754	2
A129	All other congenital malformations	750–752	2
	XV—Certain Diseases of Early Infancy		
A130	Birth Injuries	760–761	2
A131	Post-natal asphyxia and atelectasis	762	12
A132	Infections of the newborn:		
	01 Diarrhoea of newborn (under 4 weeks)	764	2
	04 Other infections of newborn	763–766	2
A133	Haemolytic disease of newborn	770	3
A134	All other defined diseases of early infancy:		
	02 Haemorrhagic disease of newborn	771	1
	03 Nutritional maladjustment	772	9
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773, 776	56
	XVI—Symptoms, Senility and Ill-defined Conditions		
A136	Senility without mention of psychosis	794	91
A137	06 Symptoms referable to respiratory system	783	1
	08 Symptoms referable to abdomen and lower gastro-intestinal system	785	1
	12 Nervousness and debility	790	9
	14 Uraemia unqualified	792	1
	15 Ill-defined and unknown causes of mortality	795	3
	16 Other general symptoms	788.1–788.9	1

Causes of Death—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	"E" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)		
AE138	Motor Vehicles Accident	E810–E825	1
AE140	Accidental poisoning	E870–E985	1
AE146	Accidental drowning...	E929	1
AE147	05 All other accidental causes	E910–E911 E930–E965	1
AE149	Homicide and Judicial execution	E980–E985	10
	"N" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (Nature of Injury)		
AN138	Fracture of skull	N800–N804	4
AN139	Fracture of spine and trunk	N805–N809	2
AN140	Fracture of limbs	N810–N829	2
AN143	Head injury (excluding fracture)	N850–N856	3
AN144	Internal injury of chest, abdomen and pelvis	N860–N869	—
AN145	Laceration and open wounds	N870–N908	2
AN148	Burns	N940–N949	2
AN149	Effects of poisons	N960–N979	1
AN150	All other and unspecified effects of external causes	N950–N959 N980–N999	1
	Grand Total		1,108

Infant Mortality

Special consideration of infant mortality has always been a feature of these annual reports, as it should be in any report that deals with the state of the public health. For the rate of mortality as it affects infants has always been and still is, a fairly accurate and sensitive index of progress generally in any community, and the data on which the rate is based, viz: the deaths of infants under one year, and the live births of infants, are so definite and unequivocal and are so comparatively easy of collection that the possibility of error is not a problem that worries the public health official to any extent.

A high infant mortality rate is a disturbing phenomenon because it does indicate a backward state of the community, a lack of education generally and education specifically directed to prospective fathers and mothers and children. It indicates lack of appreciation of the need for attention, care, help and advice during the period of pregnancy and child birth and in the early days of child life; the lack, very likely, of adequate and perhaps efficient medical services during the ante-natal, intra-natal and post-natal period, and the need for propaganda and education to insure that these services, when they do exist, are made use of by the people for whom they were intended and above all that such of these services as can be administered in the homes of the people who require them are being taken to their homes and are not being so administered.

In addition a high infant mortality rate is usually associated with a low general standard of environmental hygiene, a degree of poverty and malnutrition, poor housing accommodation and a lack of essential basic sanitary requirements.

At one time in the history of the Urban Sanitary District, to be exact in the year 1917 when the proclamation of the Public Health Ordinance of 1915 made it possible for the Public Health Department, established at the beginning of the year, to compile statistics that could be considered fairly accurate, 412 infants under one year died, giving an infant mortality rate of 232.77. This high rate was so disturbing to the Local Sanitary Authority that with their active help and encouragement a Child Welfare League was established in 1919, an organisation of voluntary workers which, with the ready co-operation of Government and the Municipality, set itself the task of looking after the health and welfare of mothers and children during the period of pregnancy, confinement, and child life up to the beginning of school life at the age of five.

Right from the very inception of the League its beneficent work was apparent and the infant mortality rate began to show a substantial decline. This reduction has been achieved by the combined efforts of the Child Welfare League, of Government which has supplied nurses, buildings and equipment sometimes, and supplies occasionally, and of the Municipality which has donated funds.

It is not sufficiently appreciated what a great piece of public health work this is, because it is work that is done routinely from day to day, in the comparative obscurity of clinics and homes, and so does not "hit the headlines", but there can be no denying the benefit that has accrued to the community because of these combined efforts.

It is also not sufficiently appreciated that the Child Welfare League has yet a lot of work to do, and that it would like to expand its activities to the home of every woman and child in the Urban Sanitary District to make sure that no expectant mother or no child fails to come under its care and supervision. This, together with the refinement and expansion of its existing services is work that cries aloud for accomplishment, but with increasing difficulties in balancing its budget due to increasing demands on its services, without a Government subvention such as other similar voluntary bodies working in allied fields enjoy,—the League's only source of income being certain private interests and the hard pressed public already groaning under the strain of month to month donations to many and varied welfare organisations,—the day seems far off when the League will find itself in a position to launch out further so as to give effect fully to the aims and objects of its constitution.

The figure of 34.90 per 1,000 live births which was recorded in the year 1953 represents a slight but perhaps not significant increase on the figure 33.29 for the previous year 1952.

One of the most interesting and satisfactory features of the falling death rate is that the graph of the infant mortality rate has been showing a consistent downward trend since 1940, two years before the graph of the general death rate had begun to course downwards.

Eighty-four of the 157 deaths of infants under one year that occurred during the year under report were of infants under one month, in other words the neo-natal mortality was more than half the whole infant mortality, 53.5½ per cent. to be exact.

It is believed that the neo-natal mortality is due to causes operating during the ante-natal and intra-natal period and this high rate serves to emphasise the fact that whilst the mortality is being substantially reduced in the case of those infants that survive the first month of extra-uterine life, hardly any impression whatsoever has been made on the neo-natal mortality, and if the figures for 1953 serve to indicate anything at all, the neo-natal mortality is increasing.

I have stated in previous reports that if the infant mortality is to be further reduced, the ante-natal causes of that mortality viz: prematurity, congenital debility, congenital abnormalities, marasmus, malnutrition, anaemia, and the intra-natal causes, like haemorrhage, &c., &c., must be enquired into critically and study and research undertaken with a view to discovering the means whereby they can be prevented.

Births and Deaths of Infants under 1 year, 1917-53

Period	No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	1,770	412	232.77
Yearly Averages:			
1918–22	1,700	310	182.94
1923–27	1,862	274	146.96
1928–32	1,925	230	119.13
1933–37	2,248	215	96.05
Average 1918–37	1,901	288	155.57
Year 1938	2,591	204	78.73
1939	2,752	242	87.94
1940	2,937	291	99.08
1941	2,888	314	108.73
1942	3,399	322	94.73
Average 1938–42	2,913	275	93.84
Year 1943	3,751	283	75.45
1944	4,161	248	59.60
1945	3,972	239	60.17
1946	4,133	241	58.31
1947	4,113	231	56.16
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

Causes of Deaths under 1 year, 1953

Causes of Deaths	Neo-Natal Deaths under 1 month	Deaths 1 month and under 1 year	Total	Percentage of Total Infant Mortality
Ante-Natal Causes:				
Prematurity	44	1	45	
Marasmus	—	5	5	
Malnutrition	2	5	7	
Congenital Abnormalities	3	1	4	
Congenital Debility	2	—	2	
Congenital Heart Disease	—	1	1	
Anaemia	1	—	1	
Total Ante-Natal	52	13	65	41.40
Intra-Natal Causes:				
Haemorrhage	5	—	5	
Total Intra-Natal	5	—	5	3.19
Post-Natal Causes:				
Asphyxia and Atelectasis	12	—	12	
Pneumonia	3	10	13	
Diarrhoea and Enteritis	1	31	32	
Bronchitis	1	7	8	
Icterus Neonatorum	2	1	3	
Meningitis	—	5	5	
Other Post-Natal Causes	8	6	14	
Total Post-Natal	27	60	87	55.41
GRAND TOTAL	84	73	*157	

* M. 94; F. 63.

Duration of Life of Infants dying under one year of Age, 1953

Duration of Life	No. of Infants	Percentage of total deaths under 1 year	Corresponding percentage 1952
Under 1 day	18	11.47	11.68
1 day and under 2 weeks	56	35.67	28.47
2 weeks and under 1 month	10	6.37	3.64
Total under 1 month	84	53.51	43.79
1 month to 3 months	19	12.10	16.06
Over 3 to 5 months	13	8.28	11.68
Over 5 to 7 months	17	10.83	13.14
Over 7 to 9 months	12	7.64	9.49
Over 9 to 11 months	12	7.64	5.84
Over 11 and under 1 year	—	—	—
TOTAL	157	—	—

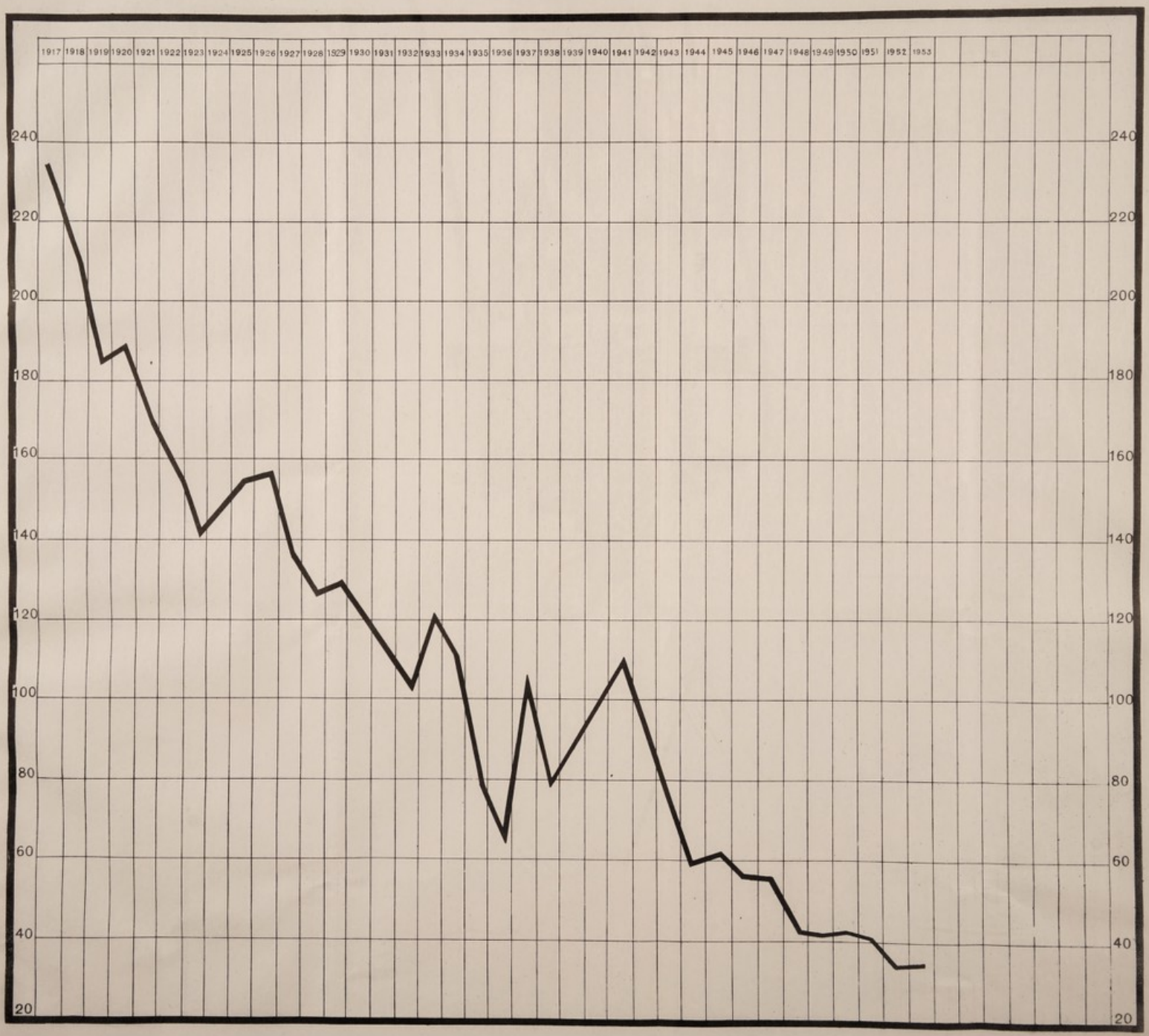
Neo-Natal Mortality (Deaths under 1 month) 1930-1953

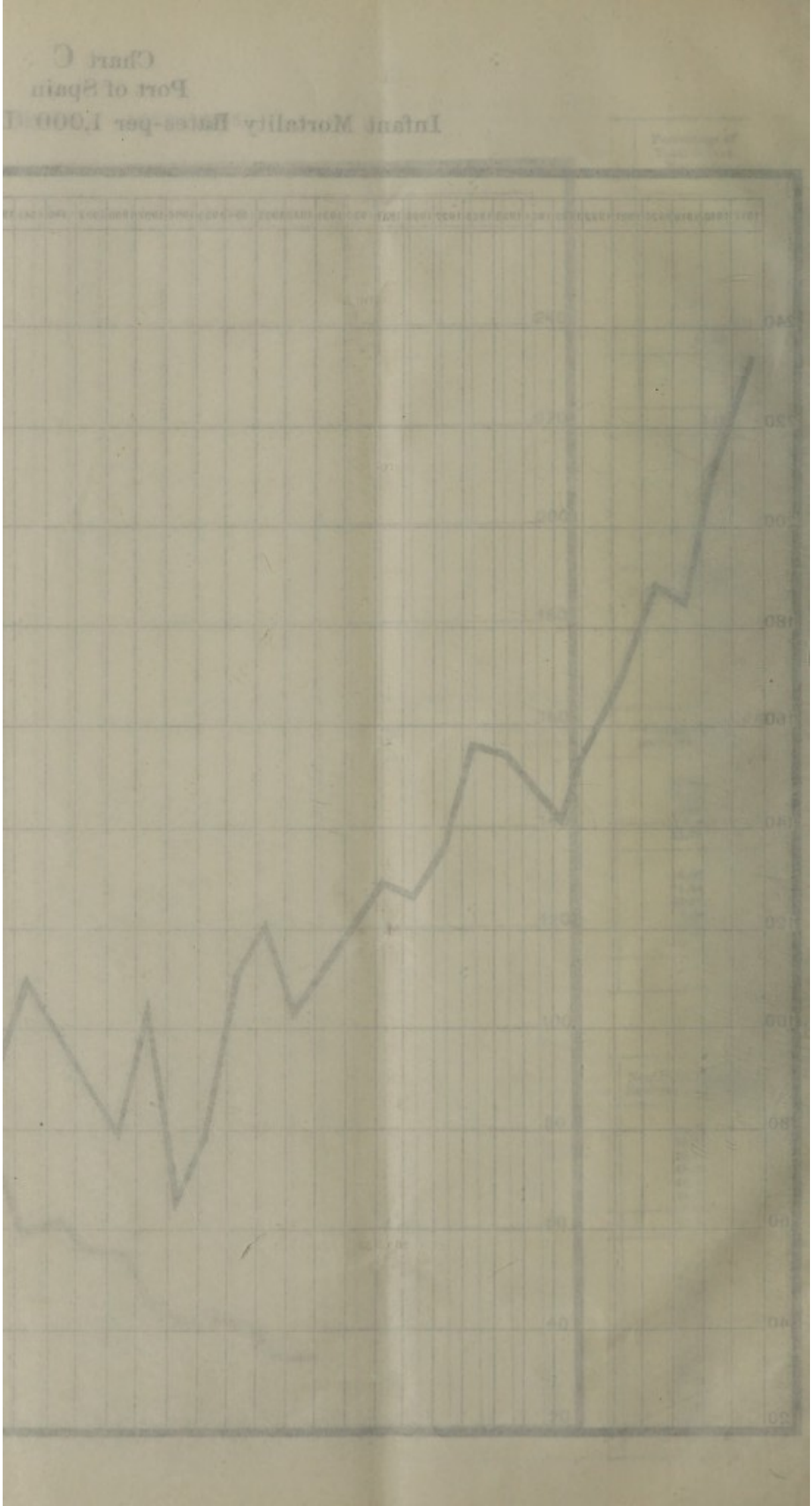
Period	No. of Deaths under 1 month	Percentage of total deaths under 1 year	Neo-Natal Mortality Rate per 1,000 Births
Yearly Average: 1930–34	90.6	38.60	44.03
Year 1935	91	50.28	39.24
1936	61	40.94	26.58
1937	110	46.41	48.39
1938	117	57.35	45.16
1939	122	50.41	44.33
Average 1935–39	100.2	49.08	40.74
Year 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

Chart C

Port of Spain

Infant Mortality Rates-per 1,000 Live Births 1917-1953





Still Births

Still births bear a close relation to the neo-natal mortality; in the former the infant is so affected by accident, injury or disease that it dies in its mother's womb, in the latter it is born alive but so weakened by the same causes that it cannot survive beyond the first month of independent life. It is during the ante-natal and intra-natal periods that these causes operate and it underlines again the need for greater welfare, care, and attention during these periods of the expectant mother's life. It also points to the urgent necessity for greater study and research into morbidity and mortality during the ante-natal and intra-natal period. A *laissez faire* attitude towards this problem which has an important bearing on the infant mortality rate and which is responsible for the deaths of more infants than all the causes combined of mortality during the first year of life, is not likely to lead to amelioration of a state of affairs that, to say the least, is frankly disturbing.

Apart altogether from those accidents and diseases of pregnancy and confinement that are so well known and are being further studied, and for which prompt and skilled attention during the whole ante-natal and intra-natal period are absolutely necessary, the chronic system diseases like syphilis, chronic malaria, chronic nephritis, diabetes, tuberculosis affecting either parent, have a bearing on the still birth mortality, and any prospective mother or father who is a victim of these diseases, should be brought under skilled care and treatment immediately.

During the year under report 225 still births were recorded, about half as many again as the number of infants dying during the first year of life. In fact still birth mortality has been consistently greater during the past six years than infant mortality with the single exception of the year 1950 when the figures were 42.25 and 43.02 respectively. These figures are remarkable and represent a lamentable wastage of human life. It is clear therefore that if we pat ourselves on the back that our public health measures have succeeded in effecting a substantial lowering of the infant mortality rate, and we omit to take into consideration the fact that no change whatever has taken place in the still birth rate, we are living in a fool's paradise.

Still Births 1953

Year	Total Still Births	Rate per 1,000 Live Births
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, again, is mortality associated with what should be a normal physiological function, viz.: child bearing.

A healthy mother and a healthy father should conceive a healthy infant which should grow up normally and be born healthy, with no adverse effect on the mother. Unfortunately this is not usually the case; mothers continue to die both during pregnancy and child birth. Constant care and attention, combined with skilled medical services during the whole of the ante-natal and infra-natal period are an indispensable pre-requisite, if we hope ever to eliminate or reduce this mortality.

During the year under report 10 deaths of mothers were registered at the Department. Facts and figures connected with this mortality are listed in the tabulated statement given hereunder. It will be noted that eclampsia was responsible for 3 out of the 10 deaths.

Causes of Maternal Deaths, 1953

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births	
						1953	Average 1948–52
Puerperal Sepsis ...	—	—	—	1	1	0.22	0.10
Eclampsia	—	2	1	—	3	0.67	0.10
Haemorrhage	—	1	—	—	1	0.22	0.44
Pernicious Vomiting ...	—	—	—	—	—	—	—
*Other Causes	—	1	2	2	5	1.11	1.30
Total	—	4	3	3	10	2.22	1.94

* Other Causes include Placenta Praevia, Septic Abortion, Toxaemia of Pregnancy.

The Pre-School Child

Compared with the infant under one year for whom so much has been done and is being done by welfare organisations in the clinic and at home, by propaganda and advertisement, by skilled medical attention and by the provision of supplies and even by monetary help, the pre-school child is a neglected individual.

This is all the more regrettable seeing that the child is "father of the man", and that injury and disease occurring at this period and left untreated are likely to have a profound effect on the future health and usefulness of the adult, and make him, perhaps, a life long burden on rather than an active contributor to, the welfare of the State.

At the end of the first 12 or 18 months the child seems to disappear out of sight, so to speak, and is only seen again when he enters school at the age of five with a number of defects and diseases that are likely to affect his school life and even his manhood, and which could easily have been prevented or successfully treated, if they had been discovered at an earlier period.

This is the *raison d'etre* for nurseries and nursery schools more of which should be established, where the toddler between the ages of one and five can be seen and attended to, medically examined, given additional food like milk and, if necessary, left during the working day, whilst mother goes out to work to earn a living or to supplement the meagre earnings of the head of the family.

Fortunately the need for this essential service is being more and more recognised, and the Child Welfare League and the Nursery Association are handicapped by the lack of funds only in their desire and determination to encourage and expand this section of their work.

Government and the people at large should not hesitate to make funds available for this very laudible and productive service.

Causes of Death at Ages 1-5—1953

Groups	Group Total	Percentage of Total Morality at ages 1–5
Diseases, &c., attributable to Ante-Natal Causes : Congenital Heart Disease 1 ; Malnutrition 4 ; Marasmus 3 ...	8	19.51
Communicable Diseases : Enteric Fever 1 ; Pneumonia 8 ; Tuberculous Meningitis 3 ...	12	29.27
Diseases of the Nervous System : Brain Tumour 2 ; Meningitis 2 ; Schilder's Disease 1 ; Tetany 1 ...	6	14.63
Diseases of the Respiratory System : Bronchitis 1	1	2.44
Diseases of the Digestive System : Fatty Degeneration of Liver 1 ; Gastro Enteritis 7 ; General Peritonitis 1	9	21.95
Other Causes : Anaemia 1 ; Acute Alcoholic Poisoning 1 ; Fractured Skull 1 ; Myocardial Fibrosis 1 ; Nephritis 1	5	12.20
	*41	—

* M—21 ; F—20

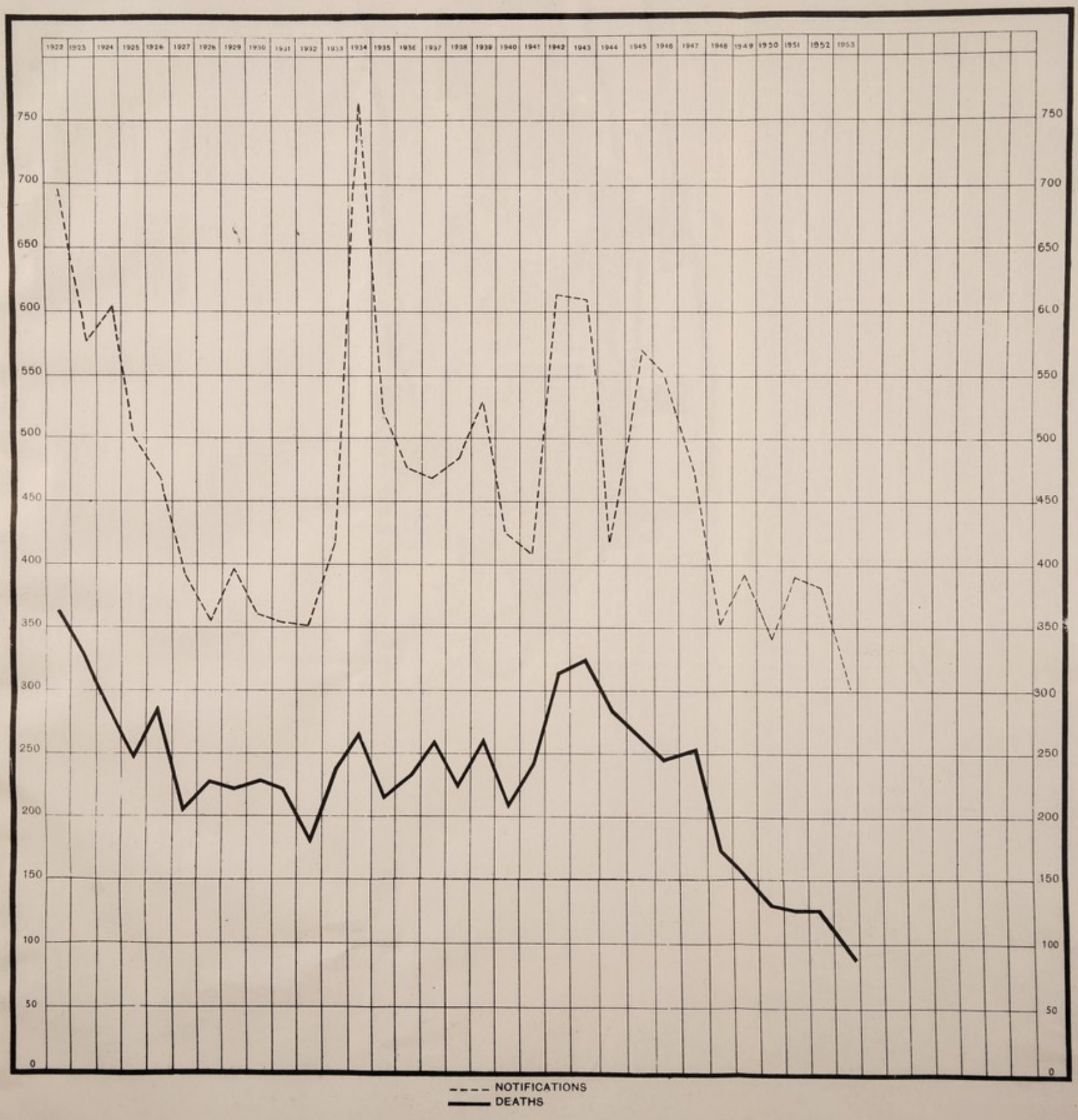
PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

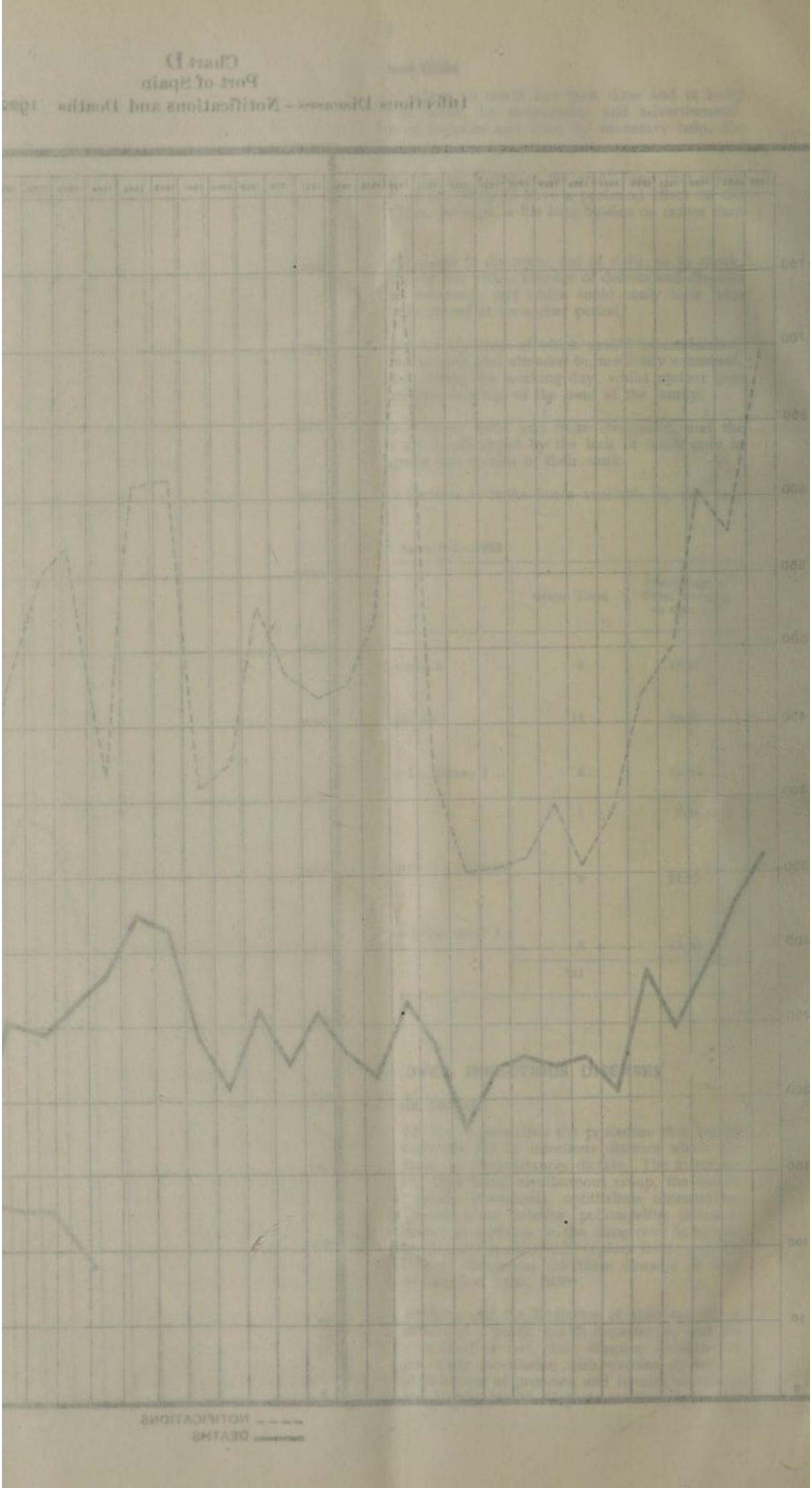
Notifiable Infectious Diseases

Part XIV of the Public Health Ordinance, Ch. 12. No. 4 prescribes the procedure that legally obtains in regard to infectious diseases and also details the list of infectious diseases which are notifiable, a list that can be added to or subtracted from, as circumstances dictate. The infectious diseases that are now notifiable are twenty in number: diphtheria, membranous croup, the enteric fevers, pulmonary tuberculosis, tuberculosis (other forms) pneumonia, ophthalmia neonatorum, chicken pox, encephalitis lethargica, cerebro-spinal fever, acute anterior poliomyelitis (infantile paralysis), acute ascending myelitis, and puerperal fever; in addition to the dangerous infectious diseases viz.: plague, cholera, yellow fever, small pox (including alastrim), typhus fever, typhoid and anthrax. Typhoid fever and anthrax were proclaimed dangerous infectious diseases in 1937 and 1938 respectively (*Royal Gazettes* 30th July, 1937 and 2nd June, 1938).

The prevention of the occurrence of infectious diseases and the limitation of their spread, if and when they occur, are one of the main pre-occupations of a public health department, and the investigation of cases of infectious diseases, whether notified or not, their effective isolation, in hospital if possible, the close supervision of contacts, their inoculation with vaccine or serum, whenever an effective prophylactic is available, the disinfection of premises and fomites constitute one of the most important duties that the staff of the Public Health Department is called upon to perform.

Chart D
Port of Spain
Infectious Diseases– Notifications and Deaths 1922–1953





Practitioners on the whole are alive to their statutory duty in this regard and keep the Department fully informed by notifying early and regularly cases of infectious diseases; there are, however, practitioners who have to be reminded of their duty, but who promptly comply as soon as their lapses have been brought to their attention.

Some infectious diseases can be described as "well notified", i.e. they are kept constantly in mind and are promptly notified on the slightest suspicion, which, of course, is in keeping with the law, such as chicken pox or typhoid fever; others again are, oftener than not, notified just before a fatal outcome becomes apparent, like pneumonia and even pulmonary tuberculosis. I have on several occasions indicated to practitioners that notification of infectious diseases should take place at the earliest possible opportunity, i.e., as soon as the merest suspicion of infectious disease has been aroused, and that the notification should, preferably, be by telephone, to be followed by the official notification form duly filled in, which should be delivered by hand to this Department.

All this with a view to enabling the Department to take the steps which have been referred to above at the earliest possible moment.

It is when, and only when, early and effective isolation of infectious disease is resorted to, that the disease can be brought under control and its spread to the rest of the community prevented. It is, of course, inevitable in these circumstances, that errors of diagnosis be made, but it is remarkable how few and far between such errors have been, and the added precaution of referring whenever at all possible the suspected case to hospital enables a wrong diagnosis to be corrected later on.

The figures for notifiable infectious diseases for the year 1953, which are listed in the table below, show that a substantial decline in the number of cases of infectious diseases was recorded with a corresponding substantial decline in the number of deaths.

In fact these figures of 301 notifications of, and 83 deaths from notifiable infectious diseases are the lowest ever recorded since the Public Health Department was established in January, 1917. If there is any doubt that the notifications received at the Public Health Department do indicate, fairly accurately, the number of cases occurring in the Urban Sanitary District and if it is felt that no great reliance can be placed on these figures, the decline in the number of deaths registered resolves that doubt for all deaths must be registered and no burial can take place without a death certificate; there can therefore be no error in failure to report deaths, indeed, if error there be in the death returns, it can only be error in diagnosis of the actual cause of death.

These low figures are all the more remarkable seeing that an outbreak of Typhoid fever starting in the Borough of Arima had the usual repercussions in that the number of cases of typhoid fever notified, which had been few up to September, took a sharp upward turn to register 36 at the end of the year.

A careful scrutiny of the figures listed below showed that the largest number of notifications received were again those of pulmonary tuberculosis 122, though 25 fewer than in 1952, pneumonia 46 as compared with 68 in 1952, and chicken pox 51 as compared with 94 in 1952. The East Dry River and Belmont Sub-Districts, as can confidently be expected, furnished the bulk of the cases, 168 notifications with 43 deaths, with the East Dry River Sub-District easily in the lead with 91 notifications and 33 deaths.

One case only was notified from the St. Clair Sub-District and one death only registered.

Infectious Diseases—Notifications and Deaths—1943–1953

Infectious Diseases	Cases Notified				Deaths			
	Average 1943–47	Average 1948–52	1952	1953	Average 1943–47	Average 1948–52	1952	1953
Diphtheria	24.8	21.0	20	33	3.2	1.6	1	1
Membranous Croup ...	—	—	—	—	—	—	—	—
Typhoid or Enteric Fever ...	46.0	31.2	32	36	9.2	5.2	8	3
Plague	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Small-pox	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	193.8	155.2	147	122	156.2	55.2	28	20
Tuberculosis (other forms) ...	13.6	5.6	3	6	11.4	9.8	12	6
Pneumonia (all forms) ...	128.0	69.6	68	46	90.0	66.2	72	52
Ophthalmia Neonatorum ...	11.2	5.8	10	7	—	—	—	—
Chicken Pox	91.6	78.6	94	51	—	—	—	—
Encephalitis Lethargica ...	—	0.2	1	—	1.0	0.2	—	—
Acute Poliomyelitis ...	0.4	2.0	3	—	0.4	0.4	—	—
Cerebro-spinal Fever ...	1.4	1.0	—	—	0.2	0.2	—	—
Typhus Fever	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—
Puerperal Fever	12.8	0.4	—	—	1.0	1.0	—	—
Anthrax	—	—	—	—	—	—	—	—
Grand Total ...	523.6	370.6	378	301	272.6	39.8	121	83
Rate per 100,000 population...	514	356	345	271	269	135	111	75

Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1953

Diseases	City		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	4	—	—	—	8	—	16	1	3	—	2	—
Membranous Croup ...	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid or Enteric Fever ...	6	—	—	—	11	2	6	1	7	—	6	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Small-pox (Alastaim) ...	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	33	5	—	—	28	7	28	—	11	1	17	7
Tuberculosis (other forms) ...	—	1	—	—	9	3	1	1	—	—	1	1
Pneumonia (all forms) ...	4	11	1	1	16	21	10	7	3	1	12	8
Ophthalmia Neonatorum ...	2	—	—	—	3	—	—	—	2	—	—	—
Chicken Pox	9	—	—	—	16	—	16	—	—	—	10	—
Encephalitis Lethargica ...	—	—	—	—	—	—	—	—	—	—	—	—
Acute Poliomyelitis ...	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal Fever ...	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever ...	—	—	—	—	—	—	—	—	—	—	—	1
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total ...	58	20	1	1	91	33	77	10	26	2	48	17
Rate per 100,000 population in each Sub-district ...	151	52	54	54	369	134	401	52	184	14	368	130

Notifiable Infectious Diseases—Home and Hospital Deaths, 1953

Diseases	Deaths			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1952
	At Home	At Hospital	Total		
Diphtheria	—	1	1	100.00	100.00
Enteric Fever	—	3	3	100.00	87.50
Pulmonary Tuberculosis	15	5	20	25.00	42.86
Tuberculosis (other forms) ...	2	4	6	66.67	83.33
Pneumonia (all forms)	15	37	52	71.15	47.50
Puerperal Fever	—	1	1	100.00	—
Cerebro-Spinal Fever	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—
Encephalitis Lethargica	—	—	—	—	—
Total	32	51	83	61.45	52.07

Premises, &c., Disinfected for Infectious Diseases and Vermin—1953

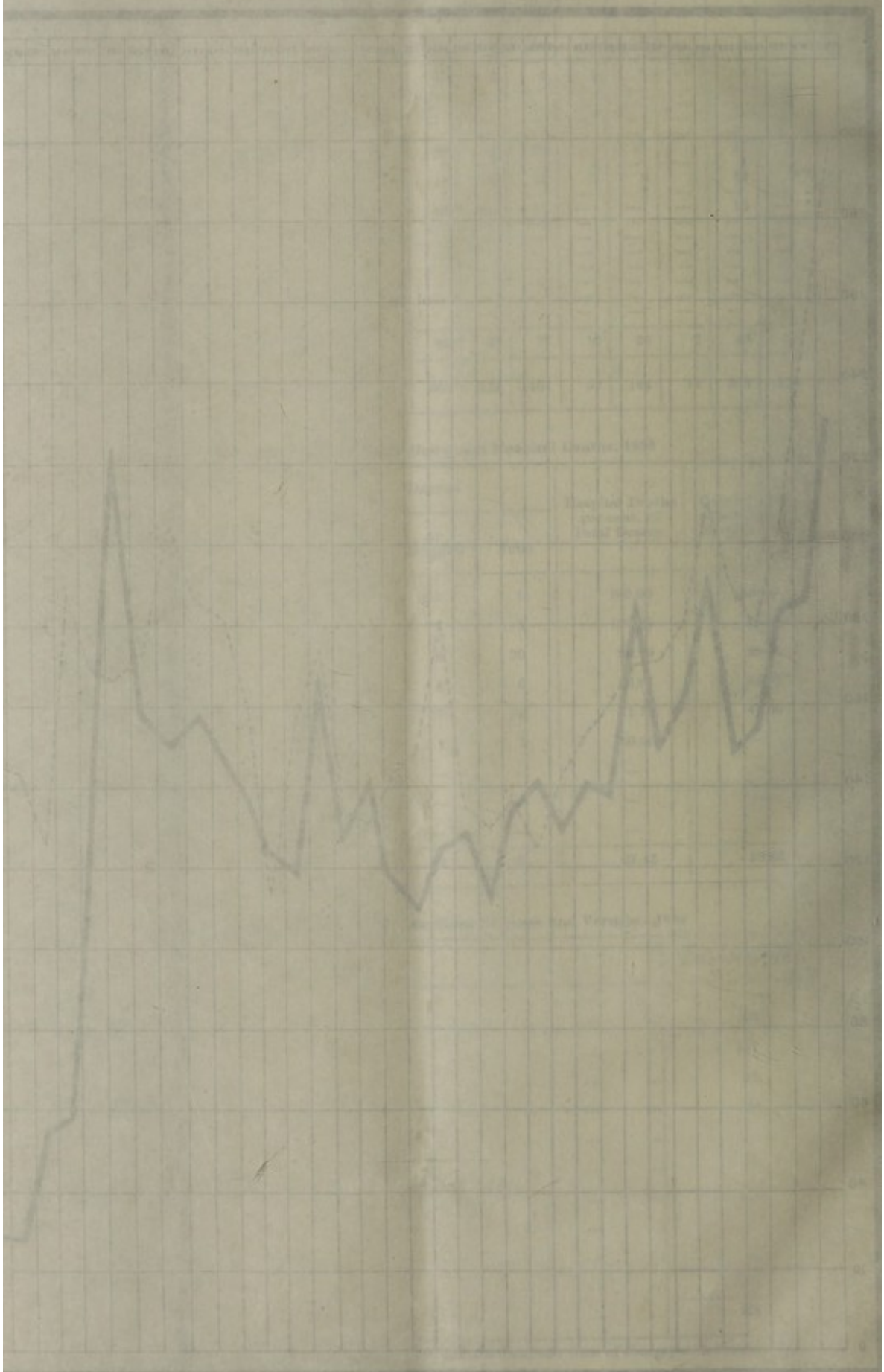
Diseases	Premises sprayed
Pneumonia	36
Tuberculosis	117
Enteric Fever	41
Diphtheria	30
Puerperal Fever	—
Ophthalmia Neonatorum	5
Chicken Pox	32
Poliomyelitis	—
Encephalitis Lethargica	—
Total	261
Vermin	326

13,339 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

Chart E

Port of Spain

Pulmonary Tuberculosis — Notifications and Deaths 1918–1953



TUBERCULOSIS

Pulmonary Tuberculosis

In regard to Tuberculosis generally and to Pulmonary Tuberculosis particularly, hopes are now being seriously entertained that it may be possible in a few years' time to reduce the incidence of this disease to such an extent that the anxiety and concern associated with it for so long will disappear.

Certainly the measures of prevention and treatment, of treatment especially, that have been and are being executed since the establishment in 1946 of the Tuberculosis Division of Government have proved to be the success that was sincerely hoped for and keenly anticipated. More and more cases are being brought under treatment at that early stage at which cure can be confidently expected, more and more cases are being actually cured, and sent out of hospital or sanatorium and more and more cases are returning to normal life. More important yet, the old sense of fear and hopelessness, the feeling of an intolerable calamity, the despair and disappointment in home and family, are more and more giving way to hope and confidence in ultimate recovery when once the initial shock has been overcome. To this extent the consistent efforts of the Tuberculosis Division of the Health Department of Government and the Association for the Prevention of Tuberculosis have been blessed with the success that they deserve.

But there are several dark spots on the horizon, and worse yet there seems little disposition to grapple with them. The patient when cured and sent out of hospital or sanatorium has normally to return, whether he likes it or not, to the same identical hovel in the same insanitary surroundings where he contracted his disease and where conditions are ripe and ready for his relapse.

Slum Clearance which is a *sine qua non* in the fight against tuberculosis has come to a standstill through lack of funds; houses are getting more and more dilapidated and out of repair; basic sanitary requirements are oftener than not lacking; and damp and wet surroundings are the usual concomitant of these insanitary conditions.

Foodstuffs, the sheet anchor in the prevention and treatment of this disease, particularly the basic essential foodstuffs, have on occasions been in short supply and have not always been available at prices within the pockets of the poorer classes among whom tuberculosis is more prevalent.

More important still the sufferer from tuberculosis, when cured and discharged to normal life again, is sorely pressed when it comes to finding suitable employment or any employment at all, when he seeks means whereby he can once more earn his livelihood. The stigma of working beside and of being on the same premises as, a person who has had tuberculosis remains as great as it ever was, and employers show great reluctance to give employment to such people.

Oftener than not the cured patient should not be allowed to and, in fact, cannot undertake the same kind of employment in which he was previously engaged and he has to be trained in other forms which are more suitable to his condition. This work of rehabilitation is being undertaken by the Association for the Prevention of Tuberculosis but only to a limited extent, and at the moment only a few ex-patients can be trained for new jobs which, as I have stated before, are few and far between.

Expansion of this work is an urgent necessity, but it cannot be effectively undertaken until the new projected headquarters of the Association at Wrightson Road have become an accomplished fact, which it is to be hoped will be in the immediate future.

The routine work of diagnosis and treatment of the disease, the detection and supervision of contacts, the care and welfare of contacts and of the family as a whole, the after-care and rehabilitation of the discharged patient continued as usual in the year under report, on a greater scale and covering a wider field, in proportion as more funds and more workers, voluntary and professional, became available for the purpose.

Pulmonary Tuberculosis—Notifications and Deaths, 1918-53

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	150	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

Non-Pulmonary Tuberculosis

This important form of tuberculosis, to prevent which efficient public health measures are readily available, does not get the attention it deserves. It is true that, oftener than not, these cases of non-pulmonary tuberculosis are diagnosed on the post-mortem table, but tuberculosis of bone, glands, bowels and peritoneum, of brain and meninges, are well known and well recognised forms of tuberculosis and we are fortunate in having in our armamentarium a drug like streptomycin, which can effect a cure of this disease, even though certain untoward after-effects may ensue.

Measures of prevention, however, are eminently applicable to this form of tuberculosis, seeing that the causative organism, which is the bovine tubercle bacillus in the large majority of cases, is conveyed in the contaminated meat and milk of bovines.

Regular and thorough ante-mortem examination of animals about to be slaughtered, efficient post-mortem examination of carcases, the proper pasteurisation of milk by an approved method in a plant that is kept under constant supervision, the regular tuberculin testing of cows, before cow keepers and dairymen are registered and licensed, are measures that to a large extent are being applied to reduce the toll of mortality that is being exacted by this form of tuberculosis.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1953

Forms	Notifications	Deaths
Miliary Tuberculosis	1	—
Tuberculosis of Meninges	2	4
Do. Spine and Bones	2	1
Do. Peritoneum	1	1
Total	6	6

Deaths from Non-Pulmonary Tuberculosis, 1924-53

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

ENTERIC FEVER

The number of cases of enteric fever, or as it is generally known typhoid fever, occurring in any community has an important meaning to the public health officer. For typhoid fever is a very sensitive index of not only the success of the measures adopted to secure the efficient disposal of faecal matter in a community, but it does also give one a good idea of the general level of sanitation and hygiene obtaining and of the level of education generally, but of health education especially.

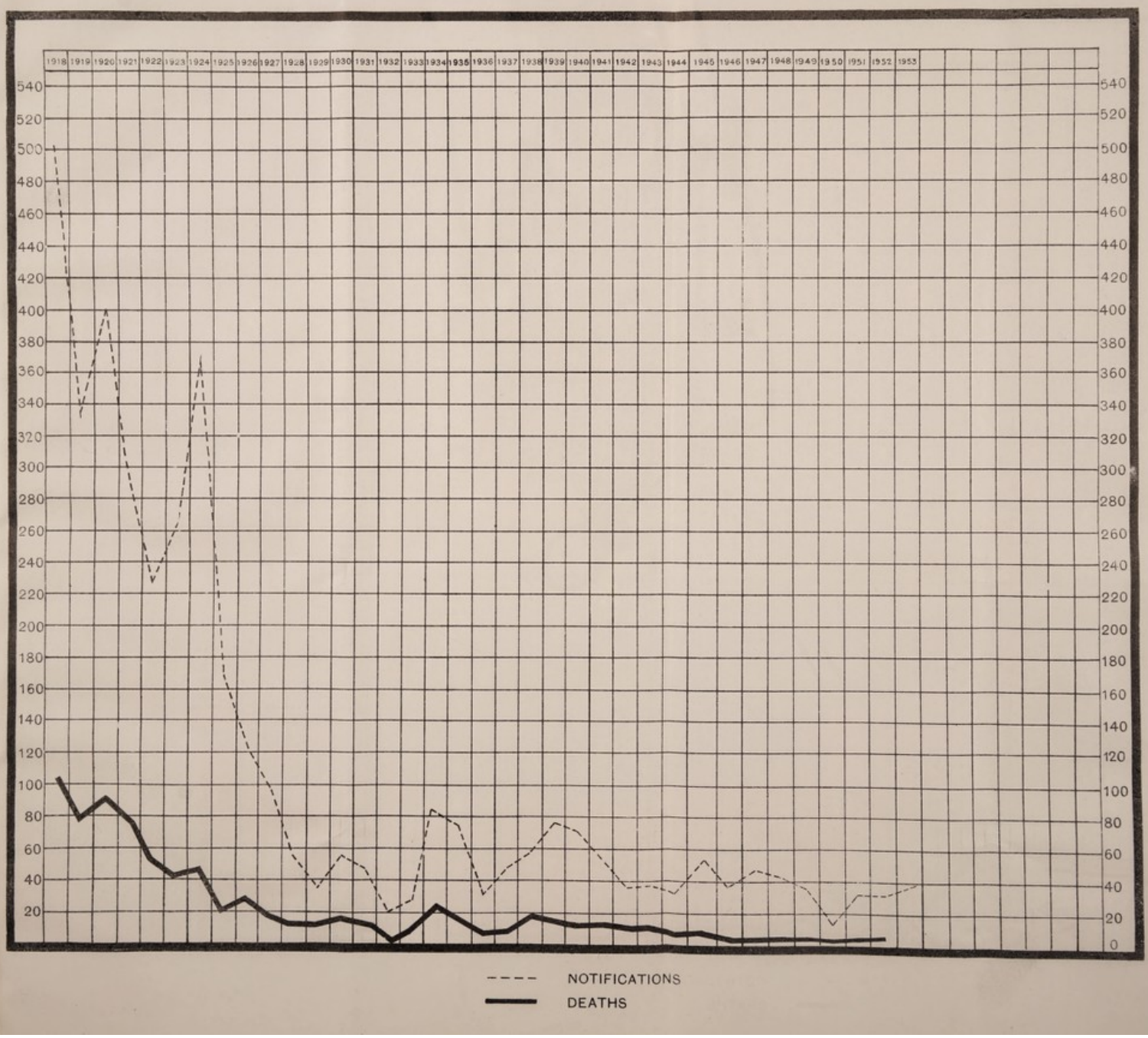
For it is an undoubted fact that where the general level of sanitation is low and particularly where it is possible for infected excreta to find its way into the alimentary track of man, where the purity of the water supply is not beyond suspicion and where foodstuffs generally and foodstuffs that are usually eaten raw particularly are not efficiently protected from contamination with dirt, dust, flies, &c., there one finds invariably a high incidence of typhoid fever. In this regard the installation of a water-borne sewerage system is a necessity of prime importance, for any system of conservancy which permits faecal matter and maybe infected faecal matter to be retained in and about premises, carries with it the grave disadvantage of adding to the incidence of typhoid fever, dysentery and the other bowel-filth diseases. This coupled with the chlorination of the water supply has had a profound influence in reducing the number of cases of those diseases which are spread by infected bowel excreta.

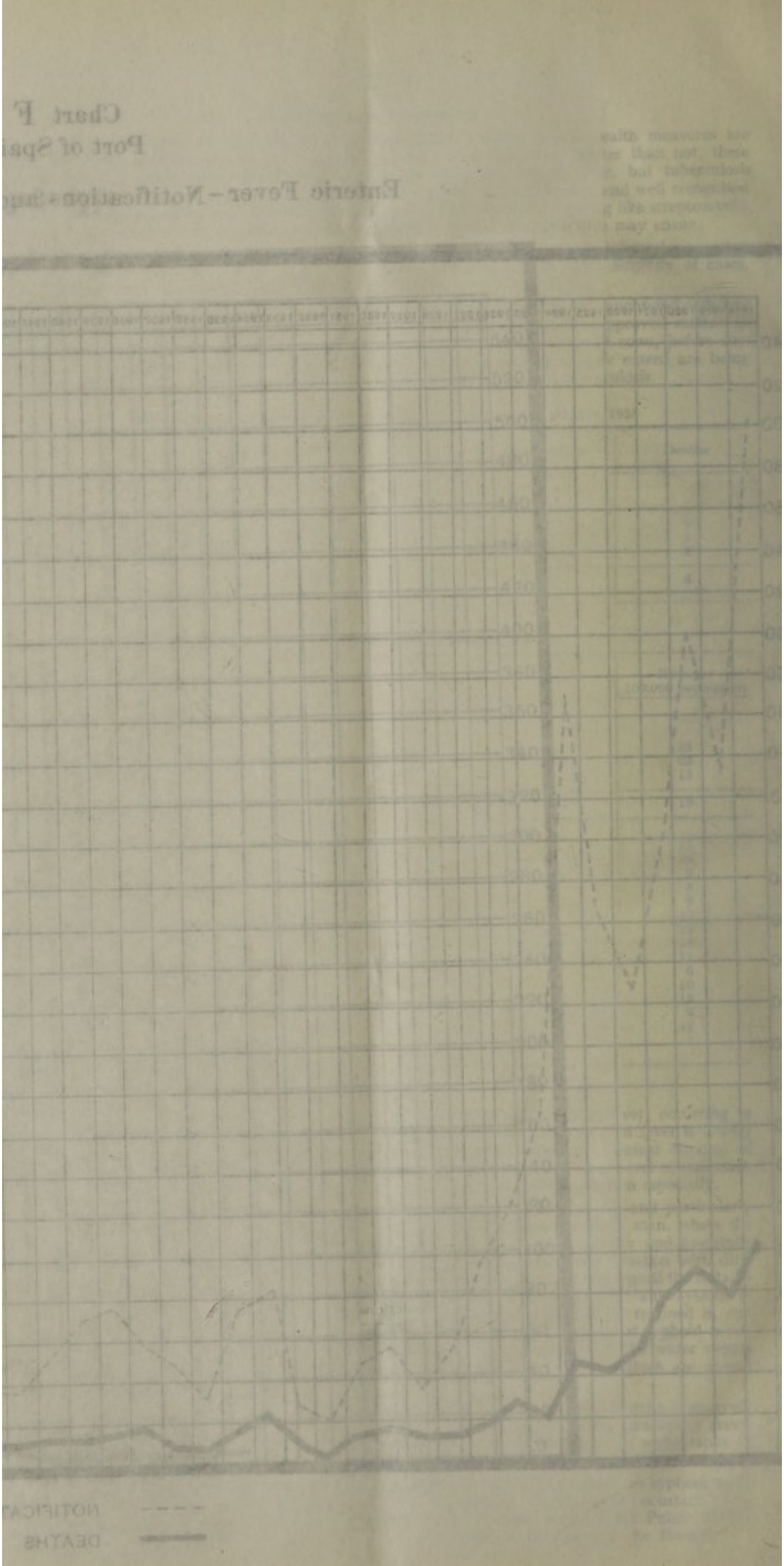
In the City of Port-of-Spain where less than one half of the Urban Sanitary District is sewered, there still remains the privy cesspit system for disposal of faecal matter in the unsewered areas, only a limited number of premises being served by local sewerage systems such as septic tanks or what is much more usual, cesspools.

It is clear, therefore, that in these unsewered areas the danger of the spread of typhoid fever is a real one, a danger that is always present but which is greatly diminished by constant oiling and disinfecting of these areas which is part of the regular routine work of the Public Health Department but which is intensified whenever a case of typhoid fever occurs in the District.

Chart F
Port of Spain

Enteric Fever – Notifications and Deaths 1918-1953





On these latter occasions oiling of all the privy cesspits within a circle a mile wide is immediately undertaken in addition to measures of disinfection applied to the premises themselves where the case occurred, and to the particular cesspit where it is almost certain that infected faecal matter has been deposited.

As to how the causative organism is transmitted in those cases of typhoid fever that do occur, it is true to state that they are almost certainly not water-borne but are due in the large majority of cases to the consumption of infected foodstuffs, particularly that kind of foodstuff which is usually eaten raw like water cress, cabbage, lettuce, spinach and tomatoes, the vegetable gardens from which they are derived being, oftener than not, manured with human excrement.

The remainder are contact cases, when a case has been missed, not diagnosed early enough, or not properly isolated.

Coming to the year under report the most marked feature was the small number of cases notified to the Department during the greater part of the year. Up to the month of September eleven (11) notifications were received but suddenly the number of cases began to increase until at the end of the year under report 36 cases were notified, 25 cases being reported during the last four months of the year. This was undoubtedly due to an outbreak of water-borne typhoid which occurred in the Borough of Arima and which had the usual repercussions in the City of Port-of-Spain. Residents of the City who had visited friends or relatives in Arima during the period of infection of the water supply, or citizens of Arima who were incubating the disease and who thought it best to leave the infected area, often without disclosing this fact, developed the disease whilst staying in Port-of-Spain, and so added to the number of cases occurring in the Urban Sanitary District.

The final result was that for the year 1953, 36 cases were notified and 3 deaths registered which, in spite of the Arima outbreak, does not compare unfavourably with the 32 cases and 8 deaths that occurred in the year 1952. This water-borne outbreak of typhoid fever which occurred in the Borough of Arima in 1953 is the second since 1933 to affect the City. In the latter year an epidemic which started in the San Juan-Barataria District and which spread ultimately to the City was proved to be due to the consumption of infected water which was taken from the San Juan River.

Due to the fear and anxiety engendered by the Arima outbreak residents of the City and the outlying districts swarmed the Public Health Department for prophylactic inoculation, and the opportunity was seized by Government and the Local Sanitary Authority to establish two centres, one at the Public Health Department and the other at the headquarters in Marine Square of the Medical Officer of Health St. George West, and numbers of adults and children received two T.A.B. injections at weekly intervals.

ENTERIC FEVER

Notifications and Deaths, 1918-53

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

Inoculation of Enteric Fever Contacts, 1953

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*

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

PNEUMONIA

Pneumonia is a disease which occurs with great frequency in the City of Port-of-Spain. But because it can be diagnosed fairly easily and responds to treatment by modern drugs so readily, it is not a disease that can be considered "well notified" and "failure to report" is the rule rather than the exception.

Practitioners hardly ever think of public health measures to prevent the spread of this disease and so hardly ever notify these cases to the Medical Officer of Health. As a matter of fact due to the very little that can be done in the way of preventive measures, it would appear that notification is a waste of time. That is, however, not the true position. Pneumonia is an infectious disease and can spread and does spread from the sick to the healthy by means of droplet infection. All cases of pneumonia should be effectively isolated and this is absolutely necessary in the overcrowded and congested section of the City where sanitation is not up to standard and buildings are old and dilapidated giving hardly any access to light and air. Under these circumstances pneumonia may easily spread to other members of the household, apart altogether from the fact that the affected person may not be so easily cured and may even develop serious complications like lung abscess, brain abscess, empyema, heart disease and even pulmonary tuberculosis. It is therefore a matter of imperative necessity that such a case be removed to hospital at the earliest possible opportunity, that sputum and fomites be disinfected, and that premises be fumigated.

With the better and more hygienic surroundings, and the better medical care and diet that hospital provides, the patient stands a much better chance to recover completely and "a stitch in time" may be the means whereby a case of pulmonary tuberculosis is prevented.

During the year 1953, 46 cases only of pneumonia were notified, but 52 deaths were certified to pneumonia in the returns that reached this Department. Seeing that the mortality with modern treatment is not more than ten (10) per cent. at most, it means that the number of cases of pneumonia which occurred during the year under report, was somewhere in the vicinity of 520.

Many of these deaths were, however, only the terminal complication of some acute or chronic system disease and though listed as the immediate cause of death could not really be considered the main cause seeing that the strength and resistance of the victim were already so lowered by the underlying system disease that the germs of pneumonia gained an easy foothold.

PNEUMONIA—(All Forms)

Notifications and Deaths, 1922-53

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

DIPHTHERIA

Diphtheria is becoming a more serious public health problem in the City of Port-of-Spain with every succeeding year, and what was a mild disease 15 years ago, would appear now to be a disease of graver significance. More cases are occurring in the Urban Sanitary District and the organism responsible seems to be much more virulent than it was in the past.

Cases of laryngeal diphtheria are more frequent nowadays and unfortunately when that stage is reached, they often end fatally in spite of the best and most modern care and treatment.

It is, therefore, a matter of urgent necessity that diphtheria be always borne in mind in cases of sore throat, that the throat be always inspected in case of fever, and if the least suspicion is aroused, a swab taken; that cases of diphtheria be notified to the Public Health Department at the earliest possible opportunity; that they be effectively isolated, preferably, of course, in hospital; that treatment be begun with anti-toxic serum immediately after the swab is taken, and always before the result of the culture is received from the Laboratory; and last but not least that all contacts be actively immunised with two (2) injections of A.P.T. in the case of children and T.A.F. in the case of adults, the second given one month after the first.

This is now the usual practice of the Department and it is considered a better course to adopt than giving anti-toxic serum which at most confers a passive immunity of short duration only, tends to the development of anti-toxic and anaphylactic reactions if serum has to be administered at a later stage and may even serve to mask the development of symptoms and clinical signs, making the case more dangerous later on as a carrier of the disease.

During the year under report 33 cases of diphtheria were notified to the Department with one death, as compared with 20 cases and one death in 1952.

DIPHTHERIA

Notifications and Deaths, 1917-53

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

CHICKEN POX

Chicken Pox is an infectious disease that is notifiable, but it is not a disease that causes us much worry or concern in spite of the fact that it possesses a high degree of infectivity.

Even under normal conditions when a limited number of cases occur, isolation in hospital is not feasible because of the shortage of beds and only isolation at home with all its shortcomings is possible. Besides chicken pox is usually looked upon by parents as a normal ailment of childhood and though a whole household may be affected, it is only on rare occasions that the help of the doctor is sought.

Chicken Pox has never in the history of the Public Health Department been listed as a cause of death in any of the returns that have been sent to this Department. But it is possible for weak and debilitated children living in congested and overcrowded areas to develop complications like broncho-pneumonia, encephalitis or even pulmonary tuberculosis as a sequela, which may, of course, be responsible for a fatal outcome.

Practitioners and, where no doctor is called in, heads of families are in duty bound to notify cases of chicken pox and it is important that they do so faithfully, for every now and then it is possible for a mild case of smallpox to simulate closely a case of chicken pox and even to be diagnosed as such with the dread consequences of a "missed" case of smallpox and all its complications, international and otherwise. That is the reason why Medical Officers of Health try to see as many cases of chicken pox as possible and would like, if it were at all possible, to have all cases of chicken pox removed to hospital for observation and treatment. This is especially desirable when the dwelling is overcrowded and two or more cases have already occurred and more are likely to occur.

During the year 1953, 51 cases of chicken pox were notified to the Department as compared with 94 the year before. These are few cases compared with the previous three years, and with 1946 when a major outbreak of 196 notified cases occurred.

Chicken Pox—Notifications, 1924-53

Period	Notifications	Period	Notifications
Yearly Averages :			
1924–28	19.8	Year 1944	33
1929–33	41	1945	122
1934–38	110.4	1946	196
1939–43	42.6	1947	57
		1948	51
		1949	57
		1950	96
		1951	95
		1952	94
		1953	51

ACUTE ANTERIOR POLIOMYELITIS

No case of this infectious disease was notified to the Department during the year 1953, as compared with 3 notifications in 1952 and none in 1951. In fact during the past ten years not more than 11 cases were notified with 4 deaths.

Because of the serious nature of this disease and because of the crippling after-effects it can give rise to, there is always a scare when a case occurs and much concern is caused the Department by the numerous enquiries and requests that are made, and by the many false rumours that fly around.

The largest number of cases that have so far been notified to the Department was in 1942 when 26 cases with 3 deaths, and in 1941 when 15 cases with 4 deaths were reported.

During the period 1941-1942 the disease was epidemic in the Colony and a total of 194 cases were reported.

ACUTE ANTERIOR POLIOMYELITIS

Notifications and Deaths, 1927-53

Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths	Year	No. of cases reported	Deaths
1927–29 ...	—	—	1936 ...	3	—	1941 ...	15	4
1930 ...	5	1	1937 ...	10	1	1942 ...	26	3
1931 ...	—	2	1938 ...	2	—	1943–44 ...	—	—
1932 ...	3	—	1939 ...	1	—	1945 ...	—	1
1933–35 ...	—	—	1940 ...	—	—	1946 ...	1	—
						1947 ...	—	1
						1949 ...	3	2
						1949 ...	4	—
						1950 ...	—	—
						1951 ...	—	—
						1952 ...	3	—
						1953 ...	—	—

OTHER NOTIFIABLE INFECTIOUS DISEASES

No notifications of encephalitis lethargica, of cerebro-spinal fever, of acute ascending myelitis (paralytic rabies), or of puerperal fever were recorded at the Public Health Department during 1953. No case of plague, cholera, typhus, yellow fever or of small pox, either variola major or varioła minor (alastrim) was reported to the Department during the year under report.

NON-NOTIFIABLE INFECTIOUS DISEASES

Because of the fact that the diseases listed under this heading are non-notifiable, it would appear to the uninitiated that not much harm is occasioned by their prevalence, and that little can be done to prevent their incidence or check their spread. Nothing could be further from the truth. This list includes diseases that are highly infectious like measles, whooping cough and influenza, which latter has occurred in big pandemic waves throughout the world leaving much suffering and many deaths in its trail,—the great pandemic of 1919 claimed more victims than the whole of World War I—, diseases like syphilis and leprosy which are contagious but only after intimate contact, and again diseases like malaria which is spread through the agency of an intermediate host, the mosquito. They can all on occasions pose major public health problems and tax the energy and resources of public health authorities.

In fact some of the diseases herein listed like measles and whooping cough, in times of great prevalence, have to be made notifiable so as to give public health authorities an opportunity of determining where and in what numbers they are occurring, in order that preventive measures directed to limiting their spread as well as to preventing their occurrence altogether may be applied as early as possible.

The more chronic of these diseases, like malaria, syphilis, leprosy, and hookworm are responsible for a large number of cases of illness and for many deaths, and have affected the economy of the countries in which they occur to a considerable degree by reason of the loss of labour that they have entailed.

In fact one of the main pre-occupations of the World Health Organisation is to help in the execution of programmes designed to get rid of malaria, syphilis, leprosy, hookworm, &c., in countries where these diseases are so prevalent that they sap the strength and vitality of the people and so reduce their productivity, and already several countries have succeeded in reducing the incidence and mortality of these diseases by means of the assistance given by the World Health Organisation and the Pan American Sanitary Bureau, its regional representative in the Americas.

It is to be regretted that only death returns are available to determine the relative incidence of these diseases, and even those can be greatly misleading seeing that many deaths attributed to other well known and common causes, are in deed and in fact occasioned by one or other of these diseases, the complications of the disease being listed as the immediate cause of death; such, for instance, is a death attributed to cerebral thrombosis, coronary thrombosis, paraplegia, aortic regurgitation or even arteriosclerosis, which are all quite often caused by syphilis, this being the basic underlying disease that gives rise to the immediate cause of death. Again liver abscess may be the only clinical manifestation of amoebic dysentery, anæmia may be due to ankylostomiasis, and myocardial degeneration may be caused by influenza.

Notifications would go a long way to solve these difficulties, and in spite of the fact that there are certain objections which may conscientiously be made when the question of notifying some of these diseases comes up, like the social and domestic aspect of syphilis, the lack of accuracy of malaria notifications, &c., &c., they are not insurmountable and these diseases should for the reasons stated quite definitely be included in the list of notifiable infectious diseases.

Non-Notifiable Infectious Diseases—Home and Hospitals Deaths, (1953)

Diseases	Deaths			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1952
	At Home	At Hospital	Total		
Malaria	.	.	.	—	—
Whooping Cough	.	.	.	—	—
Influenza	.	.	.	—	—
Dysentery	2	1	3	33.33	33.33
Ankylostomiasis	1	.	1	—	—
Syphilis	7	.	7	—	80.00
Leprosy	.	.	.	—	—
Total	10	1	11	9.09	62.50

MALARIA

No new development under this heading took place during the year under report and the position remains substantially the same as it was during the previous year 1952. To repeat, there is very little malaria, if any, to be found within the limits of the City, and whenever cases do occur they are usually imported from other parts of the Colony. Many sufferers from chronic malaria who were once residents of malarious areas in the Colony now live in the City and, as is usual, develop periodic acute attacks whenever resistance is lowered or a chill contracted.

In addition cases of malaria from the country are admitted to the Colonial Hospital, Port-of-Spain, for treatment, though as a result of the work of the Malaria Division of the Health Department of Government these cases are getting fewer and fewer with every year that passes.

But anophelene larvae and adults do make their appearance on the outskirts of the City at its extreme eastern and western limits particularly, and though there has never been any real difficulty in bringing these infestations under control, this fact indicates that there can be no let-up in this work of anophelene control and the anophelene and culex section of the Anti-mosquito Unit has always to be on the alert, if the position that has been won after so many years of consistent effort directed specifically towards the eradication of possible anophelene breeding grounds, is to be maintained.

It is clear that, with cases of acute malaria undergoing treatment in the wards of the Colonial Hospital, Port-of-Spain, if the anophelene density were to attain any significant proportion, infection with the malaria parasite is a distinct possibility, and an outbreak of malaria an imminent danger.

In this connection reference must again be made to the Cocorite Swamp. Ten years ago, i.e., in the report for the year 1943, I stated: "Already joint efforts by Government and ourselves have been undertaken in instituting and maintaining temporary measures of clearing, oiling and in some cases of filling drains and pools in the Cocorite Estate of the Corporation, a very prolific breeding ground of malaria-carrying anophelene mosquitoes and plans are being made for the complete eradication of these breeding places by permanent major works of drainage and swamp reclamation."

The intervening ten years have seen no substantial change in this position except that these temporary works continue and Government continues to spend $10,000 a year to keep mosquito breeding under control. One hundred thousand dollars ($100,000) could have gone part of the way in the reclamation of the Cocorite Swamp and building lots in a residential area could have been made available to relieve the perilous housing situation in the City and its suburbs.

Our thanks are again due to the Malaria Division of the Health Department of Government for their successful efforts in keeping this area of Cocorite free from malaria and so eliminating a potential health hazard from the City, and also for their ready co-operation and active assistance in all the many and varied mosquito problems of the City. In fact malaria generally is showing

signs of ceasing to be a public health problem because of the energy and drive with which a major health problem has been tackled and continues to be tackled. The routine work of the anti-mosquito unit, as carried out by its culex and anophelene section, remained unchanged during the year under report: the filling of depressed areas where water can collect and stagnate; the oiling of pools; the trimming of the banks of the Maraval River and the canalising of its bed; the oiling of privy cesspits; the clearing and flushing of underground drains and culverts, continued unabated during the year under report. This is the third occasion during the last four years that no deaths from malaria have been recorded. In fact no case of malaria, residing at premises within the limits of the City, which was undergoing treatment, either at home or in hospital, was notified to the Department for the purpose of investigation and enquiry as to the source of infection during the year under report, such as used to be the case in previous years.

Malaria—Local Distribution of Deaths, 1944-53

Sub-districts	Deaths									
	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953
City Proper ...	7	6	6	—	—	1	—	—	—	—
St. Clair ...	1	—	—	—	—	—	—	—	—	—
East Dry River ...	5	8	1	—	1	—	—	—	—	—
Belmont ...	3	—	2	2	1	—	—	—	—	—
Woodbrook ...	3	—	2	1	—	—	—	—	—	—
St. James ...	3	1	1	2	1	—	—	1	—	—
Total ...	22	15	12	5	3	1	—	1	—	—

SYPHILIS

The Public Health Department, whilst fully cognizant of the splendid work that is being done by the Venereal Diseases Division of the Health Department of Government, and deeply appreciative of it, takes hardly any part at all in this work which has, of course, an important bearing on the state of the public health of the City.

The results of the activities of this Division, established by Government in 1943 with the help and advice and under the direction of Col. O. C. Wenger of the United States Army, and of the propaganda particularly that has been undertaken to educate the population of the City as to the ravages of venereal disease, have been so successful that it is difficult nowadays to come across a case of primary syphilis, and fewer and fewer food handlers are found to be suffering from venereal disease with each succeeding year.

Certain it is that more and more persons are resorting to the Division for periodic "check-up", and if the disease is contracted there is no hesitation whatsoever in going to the Caribbean Medical Centre for treatment; even when the patient has been cured regular visits are paid year by year to insure that there has been no recurrence. This represents a great change of heart and outlook as compared with ten years ago, and we are confident that these results will be reflected in a lowering of the morbidity and mortality attributable to untreated or inadequately treated venereal disease.

When this does come to pass the benefit conferred on the community will be considerable seeing that syphilis is one of the main causes of diseases of the heart and blood vessels, of diseases of the nervous system and sensory organs, and of the neo-natal mortality, i.e., the deaths of infants during the first month of life, which combined are responsible for far and away the largest share of the total mortality that occurs in the Urban Sanitary District.

There is, however, one problem that still awaits a complete solution, i.e., how to round up and bring in for treatment those few recalcitrant cases, who are in the main members of the prostitute class, that are either careless as to the harm they are capable of doing to themselves and others, or who are unduly perverse in the persistent efforts they make to spread the disease in spite of the knowledge that they are in an infectious state. Persuasion seems to have very little effect on these people and one is inclined to the view that the only effective remedy is compulsion.

During the year 1953 seven deaths due to syphilis were registered with the Department as compared with six the previous year.

Deaths from Syphilis—1918-53

Period	Deaths	Rate per 100,000 population
Yearly Averages :		
1918–22	16.2	24
1923–27	56.8	88
1928–32	28.2	41
1933–37	21.8	29
Average 1918–37	24.6	37
Yearly Average 1938–42	24.6	27
1943	29	28
1944	36	35
1945	22	21
1946	20	20
1947	21	22
1948	8	8
1949	7	7
1950	8	8
1951	11	10
1952	6	5
1953	7	6

DYSENTERY, DIARRHOEA, AND ENTERITIS

These three diseases belong to the group of "bowel filth" diseases because they are usually transmitted from the sick to the healthy through the medium of infected excreta. If this infected excreta gets on to the hands and fingers of a healthy individual, the causative organism may be swallowed and be the means whereby the individual falls a victim to the infection and becomes another case of the disease. This does happen occasionally when healthy persons come in contact with a case of dysentery, diarrhœa or enteritis, and they do not take the necessary care to disinfect their hands and fingers, but the usual source of infection is contaminated foodstuffs, particularly vegetables of the green variety which have been manured with contaminated excreta or sprinkled with infected water, or milk which has not been efficiently pasteurised or boiled and to which infected flies have gained access.

These diseases are, of course, caused by organisms, either a protozoon as in amoebic dysentery or by bacilli of the salmonella or food poisoning group, but their association with dust, squalor, the inadequate disposal of excreta, with overcrowding and malnutrition is well recognised, and as can be confidently predicted, are more prevalent in the East Dry River Sub-District where these conditions abound.

Children particularly fall easy prey to these diseases especially in hot dry weather when multiplication of organisms takes place rapidly, flies are numerous, and the possibility of contamination of foodstuffs is an ever present danger.

Preventive measures designed to secure clean wholesome food, milk and ice cream that is effectively pasteurised, and generally to prevent foodstuffs from becoming contaminated with dirt, dust, vermin, flies and other insects, are an urgent necessity if the number of cases in this group of diseases is to be substantially reduced.

During the year under report 58 deaths certified to diarrhœa and enteritis were reported to the Department.

Deaths from the Dysenteries—1918-53

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

Deaths from Diarrhoea and Enteritis—1918-53

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

Diarrhoea and Enteritis—Deaths in Sub-districts

Sub-districts	Deaths
City Proper	4
St. Clair	11
East Dry River	21
Belmont	9
Woodbrook	6
St. James	7
Total	58

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

Cardiac and vascular diseases continued to take their customary toll of human life during the year under review as they have, of course, been doing for the past 36 years with this difference, however, that more and more residents of the City are becoming victims of these diseases as the years roll by.

Nothing that has been done, so far, has had the effect of reducing the morbidity and mortality attributable to these diseases. It is the same story year after year.

It may be asked what can be done and the answer must inevitably be in the present state of our knowledge "not very much", in view of the fact that the main underlying causes of these diseases are the stresses and strains incidental to the complexity of modern life, yet there is a certain definite percentage of cases which are due to organic diseases that can be prevented. I refer to those diseases of the heart and blood vessels that are due to chronic infections like syphilis, and to the chronic diseases of the liver and kidneys. Adequate and efficient treatment of syphilis in the early stages and above all the prevention of the infection altogether, would spare these delicate tissues of the heart and blood vessels and of the brain, nervous system, and sensory organs that are so vulnerable to this disease, and for which so little in the way of treatment can be done when once they are attacked. The avoidance of those well known poisons 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.

Seeing that the greatest incidence of these diseases is to be found at the later age-periods of life, between 40 and 60 and over 60 years of age when, by reason of his knowledge, wisdom and experience, the victim is likely to be of greatest use to the community, it is a matter of prime importance that a health education campaign directed to teaching the afflicted how to live within the limits of his heart, how to avoid stresses and strains, worry and anxiety, and yet be able to undertake useful and productive work, be instituted at the earliest possible opportunity.

During the year 1953, 299 deaths from cardiac and vascular diseases were listed in the returns that reached the Department from the Colonial Hospital and from the various district registrars in the different parts of the City.

It is to be noted that in regard to this mortality only 31 were of persons under 40 years of age.

Deaths from Cardiac and Vascular Diseases in Age Groups—1953

Forms	0–20 years	21–40 years	41–60 years	Over 60 years	Total
Diseases of Arteries and Valves:					
Aneurism	—	3	8	2	13
Arterio-Sclerosis and Atheroma	—	1	3	12	16
Coronary Thrombosis	—	—	6	13	19
Mitral and Aortic Incompetence	—	—	3	1	4
Other Diseases of Arteries and Valves	—	8	29	38	75
Diseases of the Heart:					
Auricular Fibrillation	—	1	1	—	2
Pericarditis	—	—	1	—	1
Myocarditis	—	1	10	20	31
Myocardial Degeneration	—	1	5	47	53
Cardiac Aneurism	1	—	—	—	1
Endocarditis	1	—	—	—	1
Other Cardiac Diseases	10	4	25	44	83
Total	12	19	91	177	299

Cancer and other Malignant Diseases

One hundred and thirteen (113) deaths from cancer and other malignant diseases were reported to the Public Health Department during 1953, and this figure represents the largest number registered since 1917 when the Local Sanitary Authority came into being with the proclamation of the Public Health Ordinance of 1915.

Seventy (70) of these were in females and forty-three (43) in males. The tabulated statement listed hereunder details the various organs which were affected by this dread and fatal disease. Greater diagnostic accuracy and the increasing expectation of life may be responsible for the additional number of deaths that are being certified to these diseases, but seeing that their cause remains obscure in spite of much research, and that our knowledge of their origin, method of spread, &c., &c., is still very limited, it is difficult to make any statement here that can be considered correct. The only hope at the moment is again a health education campaign designed to bring about a greater consciousness of the severity of these diseases, of their high mortality, which amounts practically to one hundred per cent., and a greater appreciation of the fact that only by early resort to medical care that early diagnosis can be made and treatment undertaken at a time when there can be some hope that the disease will be brought under control and life extended by a few more years.

Any suspicious lump or indolent ulcer in any part of the body should at once be drawn to the attention of one's doctor to enable an early diagnosis of the condition to be made and appropriate treatment by surgery, X-rays or radium, as the case may be, to be undertaken.

Cancer and other Malignant Diseases—Forms, Sites and Deaths—1953

Forms and Sites	Deaths	
	Males	Females
Carcinoma		
Jaw	1	1
Tongue, oesophagus, pancreas, stomach, liver	19	15
Bowels and Rectum	6	9
Larynx, Lungs	5	1
Breast, Vulva, Cervix, Uterus	—	38
Bladder	—	1
Breast	1	—
Prostate	2	—
Site not stated	1	—
Sarcoma		
Lymph Glands	1	—
Right upper arm	1	—
Site not stated	—	1
Leukaemia	4	—
Undefined Malignant Neoplasm		
Face, leg	2	1
Ovary	—	3
Total	43	70

Deaths from Cancer and other Malignant Diseases—1918-53

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	556.8	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

SANITARY ADMINISTRATION

Staff

At the end of the year under report there was a total of 182 employees attached to the Public Health Department, of which 46 were on the pensionable staff and 136 on the non-pensionable staff.

The Sanitary Inspectors on the permanent staff who numbered 20 since 1920, were 31 in number, an addition of 11 but of the latter only 10 were permanent men, the eleventh vacancy being then filled by a retired Sanitary Inspector, who was recalled to duty, there being at the time no suitable and qualified Sanitary Inspector to fill the vacancy.

Three vacancies for Health Visitors still remained unfilled at the end of the year under report, there being at the time no suitable and qualified Health Visitors to occupy the posts; all the Health Visitors who were successful at the last examination held in 1950 are now in the employ of Government; in fact they were previously employed by Government and were granted the necessary time and facilities to take the course leading up to the Health Visitors Certificate of the Royal Sanitary Institute.

A Course for prospective health visitors was held in the early part of the current year and at the moment I write the examination for the Certificate of the Royal Sanitary Institute is about to begin; it is to be hoped that when the results of this examination are published in the early part of the coming year 1955, it will be possible to fill these three vacancies.

As a result of the increase in the number of Sanitary Inspectors the City is now divided into 18 Sanitary Districts with a Sanitary Inspector in charge of each.

The number of premises in these districts varies somewhat widely but averages between 190 the lowest and 1,230 the highest, depending upon the location, size of premises, type of buildings, one storey or two or more storeys, &c., &c.

The District Sanitary Inspector is in complete charge of all the sanitary services in his district; in fact he is, in a sense, the head functionary in a sanitary sense of his district and is answerable to the Chief Sanitary Inspector and ultimately to the Head of Department for the health and sanitary state of his district.

Sanitary control of these 18 districts, which have been reduced in size, can now be more easily effected; the Sanitary Inspector is expected to do at least 25 house to house inspections every day, and he must cover his district, i.e. inspect each premises in his district, at least once in five weeks.

Besides the 18 District Sanitary Inspectors 7 others were employed in the year under report in the execution of specific duties of a special nature as follows:

(1) One for the inspection of buildings, reporting upon building plans, layouts, specifications, completion certificates, &c., the inspection of buildings in the course of erection to ensure the provision of the necessary open spaces and the placing of the sanitary conveniences on the sites shown on the plans and their proper and efficient construction, the drafting and preparing of charts, graphs and diagrams for annual reports, and departmental use, &c., &c., the reporting on applications for leases, assignments, &c., &c.

(2) Another does (*a*) the collection of daily samples of the City's mixed water supply and the taking of bi-weekly and if necessary, daily samples at the several river and well sources of supply; (*b*) the patrolling of the various catchment areas of the river and well sources of water supply to see that the bye-laws for the protection of these sources are not contravened; (*c*) the investigation, taking of necessary action, and reporting upon any matter considered urgent by the Medical Officer of Health and the Chief Sanitary Inspector.

(3) A third is engaged in (*a*) the preparation, mapping out and the supervision of the work of the Anti-Rat Unit; (*b*) the investigation of and reporting upon all cases of notifiable infectious diseases, (*c*) the supervision of the Unit engaged in the disinfection and disinfestation of premises including theatres, common lodging houses, night shelters, &c., &c.

(4) One (1) Sanitary Inspector was posted to the Wharf Area to examine consignments of foodstuffs on their arrival at the Port-of-Spain Wharves and before they are distributed to the City and thence to other parts of the Colony. The Sanitary Inspector who was away on study leave in the United Kingdom during the last quarter of the year 1952 and the first half of the year under report, and who completed successfully the Course in Food Hygiene he was sent to take, resumed duty at the end of August, 1953 and was detailed to plan, organise, map out the food inspection work of the City in all its aspects and executes himself that part of the work which has to do with food stores, warehouses. groceries, shops, parlours, hotels, restaurants and boarding houses.

(5) One Inspector reports and checks upon food handlers, itinerant vendors, carts, trays, baskets and other receptacles with a view to securing their registration and is engaged particularly in the health education of these difficult food vendors.

(6) One Sanitary Inspector was in charge of and prepared, planned, mapped out and supervised the work of the anti-mosquito unit and the anti-rabies unit.

There are two overseers; one is in charge of the anti-mosquito unit which comprises two checkers, 1 recorder, 6 supervisors, 27 aedes inspectors, 9 men in a clearing unit, 4 men in a ladder unit, 5 men in an oiling unit and 2 general mosquito inspectors; the other overseer is in charge of the anti-rat unit which comprises 1 timekeeper, 1 checker, 8 drivers, 26 trappers, 2 yardmen and 1 office attendant.

During the year under report sixteen (16) men were seconded from the Malaria Division of the Health Department of Government to the Public Health Department of the City to assist in the DDT residual spraying of premises within the City, which commenced in the month of January and ended in the month of August. They were paid from an extraordinary vote of $20,000—Anti-Aedes Campaign—set aside for the purpose.

There are 6 men employed in disinfecting and disinfesting premises and they work under the direction and supervision of the Sanitary Inspector in charge of the anti-rat unit and disinfection unit; the operations of 6 others the anti-bat unit, are directed and supervised by the Inspector in charge of the Anti-Mosquito Unit.

The caretaking and maintenance of the Public Conveniences, a service transferred from the City Engineer's Department in 1943, is carried out by 9 men.

I have already stated in previous annual reports that additional responsibility entailing care, control, and supervision was added to the Department when the Unit maintained by the Corporation for the emptying of cesspits, cesspools and "septic tanks" was transferred from the City Engineer's Department to the Public Health Department in 1946. This unit comprises 1 checker, 2 chauffeurs, 12 cleaners in two gangs, a carpenter, a cooper, and a yardman stationed at the Mucurapo Pumping Station where the night soil is disposed of, and it works under the direction and control of the Supervisor of Cleansing of Cesspits.

Actually, the outdoor Staff comprised in the year under report 25 Sanitary Inspectors, 1 Supervisor, 2 Overseers and 136 miscellaneous workers on the non-pensionable staff, all under the direction, care, control and supervision of the Chief Sanitary Inspector.

The indoor staff which takes care of the purely clerical activities of the Department in so far as they affect correspondence, verbal and written reports, the preparation of the monthly, quarterly and annual reports, the issuing of licences, badges, certificates of registration, and which is also concerned with the compilation of statistics, the keeping of the financial records and transactions of the Department and the various books, registers and minutes, &c., &c., comprise 2 Senior Sanitary Inspectors, 1 Junior Sanitary Inspector, 2 Clerical Assistants, 1 Scientific Assistant, 1 Stenotypist, 1 Typist, 1 Messenger, 1 Office Attendant, all under the direction, care, control and supervision of the Principal Assistant.

Inspection of Premises, &c., by Sanitary Inspectors—1953

Average Monthly No. of Visits to Dwellings, Shops and other Premises ... 7,755

Inspections of Store, Shops, &c.

	Average Monthly No. of Visits		*Average Monthly No. of Visits*
Provision and Meat Shops	194	Sweet Drink Carts	16
Provision Stores	77	Dairies and Cowsheds	52
Restaurants and Cookshops	65	Stables	24
Bakehouses	30	Goat Pens	69
Bread Depots	10	Aerated Water Factories	11
Cake and Ice Cream Shops	220	Soap Factories	4
Fry Shops	9	Other Factories	69
Hotels	10	Schools	29
Markets	9	Common Lodging Houses	5
Spirit Shops	43	Barber Shops	22
Ice Cream Carts and Pails	33	Dyeworks	2
Cake Trays and Baskets	42	Laundries	22
Provision Trays and Baskets	68	Garages	30
Bread Carts and Baskets	12	Tanneries	2
Fresh Fish Trays	12	Public Urinals	6
Oyster Vendor's Baskets	5	Boats	5
Plantain Carts	1		

Results of Notices and Verbal Directions—1953

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime-washed	Oiled
Yard pavements	52	192	257	—	—	—	—
Depressions in yards	—	—	—	—	99	—	—
Yards	—	—	3,063	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	189	548	2,721	—	—	—	—
Lavatories, sewer basins, flushtanks, urinals, bath rooms, &c.	251	330	863	—	—	—	—
Privies	154	763	81	—	—	421	—
Cesspits	118	102	1,676	—	—	—	—
Manure Heaps	—	—	—	—	371	—	—
Rat Holes	—	—	—	—	217	—	—
Tree Shade, Overgrowths of bush	—	—	—	—	1,190	—	—
Dustbins	756	—	—	—	—	—	—
Dustbin covers	541	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	197	2,749	304	—	259	—
Aerated Water Factories	—	—	42	—	—	2	—
Bread Carts	—	—	—	11	—	—	—
Barracks, Common Lodging Houses	1	110	22	35	—	101	—
Garages, Kitchens	—	88	—	—	—	106	—
Cowsheds, Stables	—	56	466	—	—	98	—
Tanneries, Soap Factories, &c.	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses	3	—	—	—	—	—	—
Barber Shops and other Workshops	—	—	60	13	—	—	—
Schools	—	—	—	—	—	—	—

Reports to Water and Sewerage Department—1953

Reports	*Total*
Leaks, defective taps, chokes, &c.	2,535

Anti-Rabies Measures—1953

TRAPPING, &C., OF BATS

No. of locations inspected for roosts of bats	19,190

BATS CAUGHT

Artibeus	301
Desmodus	2
Hemiderma	129
Molossus	80
Noctilio Leporinus	—
Saccopteryx	2
Myotis	2
Phyllistoma	—
	516*

*No bats were caught in adjacent districts outside the City limits.

Building Plans, &c.—1953

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

On plans, &c., for reconstruction or reconditioning of buildings ...	698
On applications for leases of land in Woodbrook and Gonzales Place	85
On premises in which building operations were in progress ...	194
On application for certificates of completion of buildings	64

Cleansing of Privies, &c.—1953

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

East Dry River	743
Belmont	549
St. James	270
Woodbrook	114
	1,676
Out Districts	—

Outstanding cesspits up to 31st December, 1953 numbered 18.

Average cost per cesspit emptied: $16.44.

Prosecutions—1953

Offences	*No. of Cases*	*Results Total Fines, &c.*
Failing to comply with nuisance notices	6	Fined $103.00
	9	Reprimanded
	106	Adjourned
	15	Fresh Summonses
	13	Dismissed
	1	Prohibition Order
	150	
Failing to comply with notice under Part II of the Public Health Ordinance *re* Streets	2	Adjourned
Breaches of Sale of Foodstuffs Bye-laws	18	Fined $174.20
	10	Reprimanded
	47	Adjourned
	27	Fresh Summonses
	6	Dismissed
	108	

Prosecutions—1953—*Continued*

Offences	*No. of Cases*	*Results Total Fines, &c.*
Breaches of Sale of Milk Bye-laws	1	Fined $10.00
	1	Reprimanded
	17	Adjourned
	10	Fresh Summonses
	7	Dismissed
	36	
GRAND TOTAL	296	

Summary

Cases	
25	Fined $287.20
20	Reprimanded
172	Adjourned
52	Fresh Summonses
26	Dismissed
1	Prohibition Order
296	

Leave of Absence—1953

	Vacation Leave No. of days	*Sick Leave No. of days*
Aberdeen, K.—Typist	21	14
Babb, F.—Sanitary Inspector	84	—
Boucaud, R.—Sanitary Inspector	—	7
Boxill, E.—Sanitary Inspector	14	—
Brathwaite, E.—Sanitary Inspector	21	7
Davidson, C.—Sanitary Inspector	21	7
Dubois, C. E.—Sanitary Inspector	21	—
Hinkson, G.—Sanitary Inspector	21	—
Holdip, M.—Sanitary Inspector	28	—
Howard, J. R.—Sanitary Inspector	56	—
Joseph, V.—Clerk	21	—
Khan, V.—Sanitary Inspector	21	36
Langton, E.—Typist	90	28
Lewis, E.—Sanitary Inspector	21	—
Marcial, R. S.—Sanitary Inspector	21	—
McTurner, K.—Sanitary Inspector	21	7
Mitchell, T. M.—Principal Assistant	—	30
Mohammed, F.—Sanitary Inspector	21	—
Nurse, G.—Sanitary Inspector	21	—
Parris, E.—Scientific Assistant	14	—
Pierre, G.—Sanitary Inspector	—	24
Rivers, F. B.—Sanitary Inspector	—	10
Romain, A.—Principal Officer	91	—
Sampson, A.—Sanitary Inspector	21	—
Scott, B. L.—Sanitary Inspector	21	14
Seon, F.—Sanitary Inspector	56	14
St. Cyr, H.—Sanitary Inspector	14	—
Thomas, F. A.—Sanitary Inspector	21	7
Turney, H.—Sanitary Inspector	42	—
Young, J. F.—Supervisor	42	—
	Study Leave	
Boxill, E.—Sanitary Inspector	202	
de Four, H.—Sanitary Inspector	122	
	Special Leave	
Marcano, Dr. R.—Medical Officer of Health	18	
Nunes, M.—Sanitary Inspector	90	

Staff :—Resignations, Promotions, &c.

RESIGNATION:

Grade A Sanitary Inspector Franklin Babb resigned the service as from 27th March, 1953, after having served for 29½ years.

PROMOTION:

Junior Sanitary Inspector Emmanuel Alfred was promoted to the post of Grade A Sanitary Inspector, as from 1st October, 1953, in succession to Mr. Franklin Babb.

STUDY LEAVE:

Grade A Sanitary Inspector Ernest Boxill resumed duty on 24th August, 1953, after one year's study leave in the United Kingdom where he pursued a course in Food Hygiene.

Grade A Sanitary Inspector Hubert de Four was granted study leave, as from 2nd September, 1953, to proceed to the United Kingdom to take a course in Health Education.

FINANCIAL

Revenue and Expenditure—1951-53

REVENUE

	1951	1952	1953
Revenue collected by the Public Health Department	$683.00	$628.82	$634.40

EXPENDITURE

	1951	1952	1953
Salaries and allowances	$75,261.65	$92,791.05	$103,231.24
Wages and allowances	80,492.51	94,035.57	91,112.18
Materials, Maintenance, &c.	17,303.04	20,830.53	32,651.06
	$173,057.20	$207,657.15	$226,994.48
Anti-Aedes House Spraying Campaign	—	—	18,874.07
Disposal of Night Soil	6,481.83	7,217.48	6,790.58
Emptying of Cesspits	32,085.20	29,829.06	*27,558.09
TOTAL	$211,624.23	$244,703.69	$280,217.22

* Emptying of Cesspits—Amount recoverable from house owners $10,449.50.

ACKNOWLEDGMENT

The year 1953 has come and gone, and as I come to the end of yet another annual report it is my duty once again to record that the work of the Public Health Department of the City continues to increase with each succeeding year due to the increasing population of the City and the need for greater, wider, and more varied public health activity, and that we have been able to maintain a not unsatisfactory state of health and sanitation is due in no small measure to the devotion to duty of the staff, pensionable and non-pensionable, as a whole and to their unfailing loyalty and continued co-operation under the able direction and leadership of those capable, conscientious, and hardworking lieutenants, Mr. O. E. Forde, Chief Sanitary Inspector; and Mr. T. M. Mitchell, Cert. R. San. I., Principal Assistant.

As each year passes by I learn all the more to appreciate the work and worth of the Chief Sanitary Inspector and the Principal Assistant, as well as that of all members of the indoor and outdoor establishment, who have all combined to work well together in the year under report and who must, of course, work well together if success is to be achieved.

I have the honour to record my grateful appreciation of, and to express my heartfelt thanks for, a year's work well done under difficult and sometimes trying circumstances.

Once again I desire to bring their valuable services to the favourable notice of the Local Sanitary Authority and to ask the Authority to make haste to provide those facilities and amenities that are enjoyed by Sanitary Inspectors employed with the Central Government, so that our men will be satisfied to remain with us, and not desert us at the first opportunity of a suitable vacancy elsewhere, after we have seen them through their "teething" period and after we have taken the trouble to initiate them in their life work and to train them in our methods.