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

1957

BY

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

GOVERNMENT PRINTING OFFICE, TRINIDAD, B.W.I.—1958

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MEDICAL OFFICER OF HEALTH

WITH THE COMPLIMENTS
OF THE
MEDICAL OFFICER OF HEALTH

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

1956-1957

THE CITY COUNCIL

HIS WORSHIP THE MAYOR, COUNCILLOR LOUIS GERALD ROSTANT, J.P.

Deputy Mayor:

COUNCILLOR H. SCOTT

Aldermen:

S. P. MATHURA
MRS. SYLVIA HUNTE
G. FRANCIS-LAU
R. COOMBS
J. MOORE

Councillors:

J. ABRAHAM
*I. DURHAM
J. CASTILLO
J. FOSTER
K. FLETCHER
MISS A. HARPER
J. KELLY
H. HOLDER
Q. O'CONNOR
A. M. QUERINO
D. MAHABIR
K. RICKHI
C. B. TYWANG

*Became disqualified and was replaced by V. Woolford on 3rd October, 1957.

Administration Report of the Public Health Department of the City of Port-of-Spain, Year 1957

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

19th October, 1958

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

SECRETARY, LOCAL AUTHORITY,

SIR,

I have the honour to submit for the information of the Local Sanitary Authority, the Annual Report on the health and sanitary condition of the Urban Sanitary District of the City of Port-of-Spain for the year ended 31st December, 1957.

There was no untoward happening to disturb the even tenor of the work of the Public Health Department during the year 1957, and on the whole the year may be briefly described as a year of routine activity directed to the maintenance and improvement of the various public health services which the Department has by statute to perform. No epidemic of any kind occurred and there was no undue prevalence of any disease. The year was devoted to the oiling and gearing of the existing machinery that is concerned with the detection and abatement of nuisance of every kind, with the elimination and prevention of the spread of infectious disease, with pest control, with the improvement of the quality and soundness of food supplies, with the maintenance of a potable water supply, with the immediate and efficient disposal of refuse and excreta of all kinds, and last but not least with a wider and more intensive diffusion of health education in the Urban Sanitary District.

In these circumstances it is only natural to expect that progress in many directions would be achieved and the facts and figures that are recorded in the body of this report testify to the improvement generally of the state of the public health in the City of Port-of-Spain.

Due recognition must, of course, be granted, as playing an important part in contributing materially to this improved state of the public health, to the measures undertaken in the City by the Central Government to relieve the acute housing situation by the elimination of slums and their replacement by the construction of blocks of flats, to the example set by increasing the wages of the members of the working classes whereby the general nutritional standard of the working population can be improved, and to the great impetus given to and the more ample facilities provided for, general education. Much more, however, remains to be done; but the signs are auspicious and at no time during the last two decades that it has been my privilege to hold the reins of responsibility of the Public Health Department has it been possible to report with greater hope and better expectation of big deeds in the offing. Events are taking place at the moment that portend an early attempt to tackle in earnest the inadequate and unsatisfactory water situation, to sewer the remaining unsewered areas of the City and so eliminate the dreadful, dangerous, and expensive cesspit system, the money that has already been spent on which could have secured the sewerage of the East Dry River Sub-district at the very least.

It cannot be long now before the Mucurapo lots are laid out and the old Leper Asylum lands converted into a Building Area, and the Cocorite Swamp reclaimed with the provision of the building space so urgently needed to relieve the congestion and overcrowding of the City Proper that can fairly be stated to be now at its very worst.

With the completion of the Lady Young Road skirting the eastern limits of the City the Council would be well advised to proceed immediately with the improvement of the East Dry River and Belmont Areas by the widening of the many lanes and roadways in those sub-districts to connect up eventually with the Lady Young Road and so provide additional points of entry to and exit from the City, and at the same time pave and widen existing earthen water-courses and construct additional drainage channels whereby the Lady Young Road and adjoining area can be drained through the City to the Sea. Such a project would at the same time open up lands that are now for practical purposes virgin soil and so provide new building areas for the much needed housing development programme. These are plans that the Council have had in mind for some time I know, but without funds and without the active help and ready co-operation of the authorities concerned these very desirable objectives cannot be achieved. It is heartening to know that with the publication of the Imrie Report to which I made reference in my last Annual Report and which is due any moment now, the financial position of the Corporation will be considerably improved and it will be possible not only to balance our budget but to undertake something in the nature of improvement works which are a *sine qua non* if the slow and gradual rate of

improvement in the health and sanitation of the Urban Sanitary District is to be speeded up. At the very least with a balanced budget it ought to be an easy matter to have the Estimates approved at the very beginning of the current year and to seize the opportunity thus afforded to proceed apace with the obtaining of equipment and supplies and with the execution of improvement works.

The vital statistics for the year 1957 showed on analysis no difference of statistical importance from the figures for the year 1956, which were recorded in my last Annual Report, except perhaps in two or three instances. Of course no undue reliance should be placed on an analysis of the figures for one year only and no hurried conclusion should be arrived at by comparing one set of figures for one year with the corresponding set for the previous year. A true appraisal can be arrived at only when the figures for a five-year period at least are compared with the corresponding figures for the previous five-year period. It is in this light that the figures for 1957 should be looked at.

I reported last year that the birth rate, death rate and the infant mortality rate showed a somewhat adverse trend and the same is true this year with the prominent exceptions of the infant mortality rate and the maternal mortality rate, particularly the latter, which showed a steep decline. The birth rate increased to 2,267 and the death rate to 940 per 100,000 population; the infant mortality rate and the maternal mortality rate declined to 46.44 and 1.46 per 1,000 live births. The mean population was estimated to be 120,650, an increase of 650, and the natural increase of population 1,601, an increase of 100 on the figure for the previous year 1956.

In so far as death rates for individual diseases or groups of diseases are concerned, the death rate for notifiable infectious diseases increased from 71 in 1956 to 80 in 1957, for pneumonia from 56 in 1956 to 69, for diseases of the heart and blood vessels from 239 in 1956 to 264 in 1957, for diseases of the nervous system including cerebral haemorrhage from 132 in 1956 to 149 in 1957 per 100,000 population. There was a decrease in the death rate for diarrhoea and enteritis from 47 in 1956 to 29 in 1957, for Bright's disease and nephritis from 22 in 1956 to 17 in 1957, and for syphilis from 15 in 1956 to 11 in 1957 per 100,000 population. For the rest, the figures for all the other diseases or groups of diseases remained practically the same as they were in the year 1956.

My grateful thanks and the grateful thanks of the Department as a whole are due His Worship the Mayor, Aldermen and Councillors who comprise the Local Sanitary Authority for the great interest they took individually and collectively in the work of the Department, and for the active co-operation and ready encouragement they gave to all matters of a public health nature and to all plans and projects designed to improve the state of the public health.

It is a source of great satisfaction to members of the Department to know that the work of the Public Health Department ranks so high in the estimation of the Local Sanitary Authority.

The work of the Department will, of course, be a nullity without the great help and the keen support of the City Engineer's Department, the Water and Sewerage Department, the Town Clerk's Department, and last but not least the City Treasurer's Department, and if it has been possible to record any improvement in this Report, a good deal of the credit must, of necessity, be laid at the doors of these other Departments of the Corporation.

For this we are deeply grateful.

I have the honour to be,

Sir,

Your obedient servant,

RODERICK MARCANO

Medical Officer of Health.

NATURAL AND SOCIAL CONDITIONS OF THE DISTRICT

No change of any great significance took place in the natural conditions of the Urban Sanitary District in the year under report and no improvement worth recording in the social conditions was noticeable—in fact, if anything, some deterioration in the existing social conditions could be detected in that with the natural increase of population and the migration of residents from the rural areas to the City in search of work and entertainment, overcrowding of dwelling houses and congestion of night clubs and gaming houses were observed with a regularity that, to say the least, was greatly disturbing.

It is true that the construction of the Lady Young extension of the Churchill-Roosevelt Highway to skirt the eastern and northern limits of the City, and the laying down of the Swamp Road to connect the Churchill-Roosevelt Highway with Wrightson Road at the southern limits were actively under way and that with their completion the natural conditions of the Belmont and East Dry River Sub-districts and of the Abattoir and Fish Market areas are almost certain to be affected, and that problems of road widening and drainage are bound to be created and would of necessity have to be solved, yet during the year under report none of these problems had as yet arisen and no serious complaint of any adverse effects, the direct result of these projects, had as yet reached the Department. At times, during the latter half of the year especially, the City was pervaded with an offensive odour which had its source in the blocking of drainage channels during the course of the construction of the Swamp Road and the consequent stagnation of evil-smelling effluents from factories and workshops on the southern side of the Eastern Main Road, but it was stated that this was largely inevitable during construction work and, true enough, as the work proceeded and the stagnation was brought to an end the smell disappeared. At the time I write these offensive odours have almost entirely disappeared, now that the Swamp Road has got past the swamp area and has arrived at its western end.

Flooding, however, from the Lady Young Road is getting more and more voluminous and complaints of storm water entering adjoining premises of the City and of natural watercourses overflowing their banks on their way to the Sea have begun to come in and works of paving and widening these channels and connecting up existing lanes and roadways with the Lady Young Road cannot now be too long delayed.

Nothing was done in the year under report to change the face of the landscape in the John John and Shanty Town Areas, in spite of the confident hope and sanguine expectation that the uninterrupted growth of these slum areas would have been brought to a standstill, and the grave threat to the health of the City that these waterless and privy cesspit ridden areas present, remain as acute as ever.

The mid-year resident population of the City was estimated to be 120,650, an increase of 650 souls on the figure for the previous year 1956, but very few dwelling houses were constructed within the limits of the City by private enterprise, and though slum clearance in the south-eastern section of the City continued, the customary snail-like pace was subjected to no acceleration worth recording.

The Mucurapo Lots long hoped for and widely advertised did not materialise and this scheme conceived so long ago which can contribute such a lot to relieve the acute housing situation that now prevails, still continues to remain a project on paper.

SANITARY CIRCUMSTANCES

Water

The water situation continued in the year under report to pose the same series of problems that I have been enumerating in nearly every annual report that I have written since I undertook the reins of office in 1937.

Briefly stated, the water supply of the City is getting more and more inadequate to meet the needs of the growing population in spite of a welcome addition from a few new well sources, and the sources of supply are becoming more and more subject to dangerous pollution, particularly the river sources, with the inevitable result that more and more sterilising chemical is needed to maintain a potable product. That does not mean to say, however, that the final product from the drinking taps contains any appreciable amount of sterilising chemical because when added at the various sources this sterilising chemical is almost entirely all used up in the purification process and by the time water is collected from the house taps there is generally no residual chemical that can be detected by the well known and highly efficient tests that are applied to treated water.

But it does mean that the water in the various reservoirs of the City has more and more to be treated and purified before it can be permitted to enter the mains of the distribution system and that with a better raw initial water, free from suspicion, the purification process need not be so intense to secure an absolutely safe and eminently potable product.

That these problems should have presented themselves is not at all surprising when one remembers that the existing waterworks system was established nearly fifty years ago when the population of the City was less than half it is today and when the river sources as we know them were in areas that were almost virgin forest at the time.

Situated as they are in areas adjoining the City, it was not altogether unforeseen that these self-same areas would one day have developed into semi-urban communities, but the rapid pace of development of the Maraval, St. Ann's and Cascade Area was not anticipated; besides it was confidently expected that these sources would have already been replaced. The well sources on the other

hand yield a product that has remained on the whole consistently good throughout the years and they are the most reliable and subject to the least fluctuation in quality and quantity of all the sources, needing a comparatively small amount of sterilising chemical to insure absolute saftey.

Wells recently sunk in the Queen's Park Savannah and particularly in the King George V Park yield a water of high initial purity and a volume that is, to say the least, surprising in some instances. Were it not for the fact that generally speaking well water is more expensive than river water because of the cost of pumping which is almost inevitable where well water is concerned, the problems of the City could perhaps be solved by sinking more boreholes, but the matter is not such a simple one; and besides plans and proposals for increasing and improving the water supply of the City have already been prepared by the engineers attached to the Corporation, and these plans and proposals have already been vetted and approved by the City's and Government's consulting engineers. An integral part of these plans is the continuation of the Caura Scheme for the specific purpose of supplying the City with river water.

In the meantime, however, the headaches and the anxieties attendant upon the continued use of the existing river sources are in no way diminished especially when one bears in mind that development in these catchment areas that would give instant relief to the acute housing situation is necessarily held up, and the temper and fury of the landowners in the areas concerned are being visited upon the head of the Medical Officer of Health who is being held personally responsible for the ban that must be enforced on building in order to insure that the larger, more important, and much more disastrous issue of the possibility of drinking greatly polluted water with the inevitable consequence of a water-borne epidemic of infectious disease, does not materialise.

Happily at the moment I write, as I have stated already at the beginning of this report, the stage seems set for combined effort by the City and the Central Government to get rid once and for all of these unsatisfactory sources and to secure a good wholesome potable supply to the inhabitants of the City.

I confidently expect that I shall be in a position to report progress in the next annual report.

The thanks of the Corporation go out again to the Government Bacteriological Department for their continued efforts in helping to maintain a good potable supply of water by their day-to-day examination and their prompt reports on the numerous samples of water that are taken by the water sampling officers of the Public Health Department and taken to the Laboratory for bacteriological analysis.

Equally do our grateful thanks go out to the Government Chemical Laboratory for chemical analysis of samples taken to them which, of course, plays just as important a part in the daily routine of maintaining the supply at a high level of potability.

Bacteriological Examination of Water Supply, 1957

Where Derived	No. of samples taken	Results of Examination			
		Safe	Unsatisfactory (presumptive B. Coli present)	Not safe without further treatment (non-faecal B. Coli present)	Not safe without further treatment (faecal type B. Coli present)
*Cocorite (Wells)	86	85	1	—	—
Docksite Well (untreated)	79	70	9	—	—
†St. Clair Pumping Station	50	50	—	—	—
‡St. Clair Well (untreated)	—	—	—	—	—
‡St. Clair Well (treated)	43	43	—	—	—
Wharf Well No. 3 (untreated) ...	48	48	—	—	—
†Maraval Reservoir	47	47	—	—	—
§Cascade Reservoir	81	75	6	—	—
§St. Ann's Reservoir	170	155	15	—	—
Knaggs Hill	49	49	—	—	—
Queen's Park Savannah Wells (untreated)	131	129	2	—	—
Laventille Reservoir	38	38	—	—	—
‖Picton Reservoir	43	43	—	—	—
‖Port-of-Spain General Hospital (Tap) ...	42	42	—	—	—
‖143, Charlotte Street (Tap)	33	33	—	—	—
‖133, Henry Street (Tap)	43	42	1	—	—
†Saddle Road, La Seiva (Tap)	47	46	1	—	—
Masson Hospital (Tap)	41	41	—	—	—
Microbiological Institute (Tap) ...	50	50	—	—	—
Sanitary Laundry (Tap)	50	50	—	—	—
Furness Withy & Co. (Taps)	126	106	20	—	—
Trinidad and Tobago Electricity Commission (Tap)	—	—	—	—	—
St. James (Taps)	35	34	1	—	—
Woodbrook (Taps)	44	41	3	—	—
City Proper (Taps)	44	44	—	—	—
East Dry River (Taps)	34	34	—	—	—
Belmont (Taps)	25	25	—	—	—
St. Clair (Taps)	32	32	—	—	—
Wells on Private Property					
Electric Ice Co., 3A, Ariapita Avenue ...	47	47	—	—	—
Canning & Co., 60-68, Richmond Street	103	98	5	—	—
	1,661	1,597	64	—	—

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

*Chlorinated, not filtered.
†Filtered after chlorination.
‡Chlorinated before distribution.
§Filtered before chlorination.
‖Filtered before chloramination.

Chemical Examination of Water

Samples Examined by Government Chemist, 1957

Where Derived	No. of Samples Examined	No. of Samples Found Safe
Picton Reservoir	40	40
Maraval Reservoir	10	10
Cascade Reservoir	13	13
St. Ann's Reservoir	13	13
Cocorite Pumping Station	10	10
Cocorite Pumping Station (for salinity)	225	225
Docksite Wells	20	20
Queen's Park Savannah Wells	32	32
St. Clair Well	10	10
Wharf Well No. 3	32	32
	405	405

Drainage and Sewerage

Adequate drainage channels and an efficient sewerage system whereby storm and sullage water and faecal matter are immediately and safely disposed of, are two of the most important factors in the maintenance of a satisfactory state of public health, and it has been observed time and again how quickly the health of a sanitary district can be improved by sewering and draining efficiently the area. When the Woodbrook Sub-district was being sewered in the year 1938 and the privy cesspit system was being eliminated, house after house, it was a remarkable fact that the number of cases of infectious disease, and particularly typhoid fever, diminished *pari passu* with the progress of the sewerage scheme.

Though it cannot be denied that the City of Port-of-Spain is on the whole a well-drained City and that storm water finds its way easily and readily through the City to the Sea, yet attention must be drawn to the fact that there are, particularly at the eastern and western limits of the City, a number of main water courses which cause water to stagnate in these areas with all the concomitant nuisances that stagnant water is capable of creating. I refer for example to the La Pena Ravine in the John John Area, the Santa Barbara Ravine in the Belle Eau Road Area at the eastern limits, and to the large ravines that course through the Cocorite and Harding Place areas at the western limits of the City. Some of these main watercourses were actually in the process of being widened and paved in the year under report by the Central Government whose duty it is to keep main watercourses in a state of good repair, and as I write work has actually been completed on the ravine in the Harding Place Area and is nearing completion in the Santa Barbara Ravine project. The La Pena Ravine particularly will soon have to be widened and paved, as the overflowing of the banks of this ravine has of late been responsible for flood waters inundating the Eastern Main Road in the vicinity of the Toll Gate and causing serious obstruction to the free flow of traffic along that highway.

In addition there are other ditches and depressions, pools and ponds that are a menace to life and limb and which are to be found in large numbers in the East Dry River and the St. James and Cocorite Sub-districts. They give rise to numerous complaints from residents in the area especially during the rainy season when water collects and breeds mosquitoes, causing an intractable nuisance at night time particularly. In addition they are, during the dry season, usually made use of as dumps and all kinds of vermin can be found in the heaps of rubbish that are there deposited.

The elimination of these potential sources of disease is long overdue and a comprehensive plan for the widening and paving of these tracks, lanes, and primitive earthen roadways; for the paving of these earthen drainage channels where these are needed, and for their levelling and filling-in where they are not needed; for the re-laying out, extension and enlarging of lots; and last but not least for the sewering of the entire area, cannot now be any longer delayed in view of the urbanisation and development of the adjoining areas outside the City that is now taking place.

A sewerage scheme for these areas is the only solution to these problems that are growing greater every day because of the unsatisfactory privy cesspit system that now exists. The cost of emptying these cesspits and of repairing, reconditioning and reconstructing privies increases every day and with the increased wages that have to be paid to the night soil cleaners for their labour,

and the rising cost of material and equipment that have to be used in the work of night soil cleaning and in the construction of these privies, the expenditure on this system continues to rise with each passing year. As a matter of fact an increase of 50 per cent. has of necessity been imposed just recently on owners and occupiers to meet rising costs, and that has given rise to the loud chorus of complaints and enquiries that are customary in these circumstances.

It is a sad commentary on the hardship and suffering that the residents of these areas have had to endure when one ponders the large amount of money that has been expended on the cleaning of pits in these cheek-by-jowl privy cesspit areas—money which could have contributed materially, if not entirely, to the laying down of a satisfactory sewerage system with all its attendant benefits.

Scavenging and Refuse Disposal

Scavenging and refuse disposal are among the most important of public health measures if the health and sanitary condition of an urban district is to be maintained at the highest pitch of efficiency.

The Public Health Department of the City is intimately concerned and connected with scavenging and refuse disposal even though this service falls among those undertaken by the City Engineer's Department, for the simple reason that the Public Health Department gets all the day to day complaints and all the kicks for any defects that the public may have noticed in the working of the system. It is therefore a matter of prime necessity that the two Departments collaborate closely and it is true to say that their day-to-day contacts are in this matter as intimate as the need of the situation demands. Sanitary Inspectors are in close touch most of the time with the overseers and sub-overseers of the Divisions and the Transport Train and so maintain a liaison that is effective in securing on the whole a clean wholesome City, as is generally admitted by all and sundry, though there are many gaps that remain to be filled and many problems yet to be solved to the satisfaction of all.

The Cinderella of all sub-districts, the East Dry River Area, and to a lesser extent the Belmont Area furnish the bulk of these complaints mainly because of the layout of the terrain and of the narrow roadways and steep hills that have to be negotiated by the scavengers who head the refuse down in large pans to fixed points on the main roads where the trucks collect it. The efficiency of this system has often been called into question and the system often breaks down when co-ordination between the female scavengers and collecting trucks is lacking. The result is that large accumulations of refuse "adorn" the landscape and dogs and cats as well as poultry, scatter these heaps in every direction in their search for morsels of food, thus creating a variety of nuisances.

City Engineer and I have time and again referred to the need for small short-base trucks that could without difficulty negotiate the hills and narrow lanes of these sub-districts and so collect and empty the bin that is deposited at the gateway of the householder, but this very desirable objective is among those that are taking a long time to be gained.

In the meantime the old system survives with all its defects though there is no let up in trying to improve the scavenging of the areas and in making the householder, scavenger, and collector realise each his responsibility in making the system work and in securing the co-ordination and co-operation of all, without which the service must inevitably break down.

It is unfortunate that every depression or excavation, every earthen drain or ditch, is used by a certain type of householder as a dump wherein to deposit his rubbish, but human nature being what it is, this is largely inevitable and the remedy is, as I have already indicated, to fill in depressions and excavations, to widen and pave earthen drains and to eliminate and level off all ditches.

A constant process of training and educating, of exhorting and encouraging and, of course, of admonishing and disciplining the operatives engaged in this service, goes on with a view to making the scavenger more fully aware of his responsibilities and to stopping the various abuses that are part and parcel of the service such as shirking work, depositing refuse in the underground drains where they cause obstruction to the free flow of water, demanding and at times accepting money from householders and merchants to do what they are paid for, and penalising the householder or merchant who does not accede to their request.

It must be remembered that the usual run of worker who engages in this type of work is not the most intelligent of workers and he is usually more aware of his privileges than of his duties in a service that has rightly been listed in the Public Health Ordinance as an offensive trade.

Sanitary Inspectors, on their side, are directed to explain to and co-operate with householders in their efforts to get the system to work smoothly and efficiently and to adopt a patient and a tolerant attitude towards the scavenger whose shortcomings may at times give rise to dispute and friction.

The Eastern Dump

It is customary to give special attention to this area at the southern and eastern limits of the City and which forms part of Shanty Town. Here is dumped and disposed of all the refuse of the City which is conveyed to this point by the scavenging trucks. In addition quite a lot of refuse reaches this spot by way of private scavenging trucks and the Local Authority has a working arrangement with the St. George County Council whereby refuse from the adjoining areas of the County is dumped and disposed of by our workers on the Dump.

The method of disposal adopted is the time honoured method of "controlled tipping" whereby refuse is deposited in rectangular layers at an advancing edge, compressed and consolidated by a bulldozer, and covered with a layer of earth which is effective in preventing the breeding of flies and the entrance of vermin, and the whole of which is further compressed and levelled off by the bulldozer before moving off to another rectangular area.

The Dump is under the indirect control of the Manager, Transport Train, who employs and directs the labour force engaged in this work but he works with the advice and under the guidance of the Chief Sanitary Inspector and the Sanitary Inspector of the District in which the Dump is situated.

At one time a fruitful source of fly breeding and a prolific harbourage for rats and other vermin when the method of "controlled tipping" was not fully understood and therefore inefficiently executed, the Dump has within the last year or two taken on quite a different aspect. It has been levelled over and compressed with the bulldozer, hard surface roads have been constructed which enable the scavenging carts to reach the advancing edge of the particular rectangular area where the deposition of refuse is actually taking place, and a substantial layer of earth or sawdust is now being meticulously placed on the whole area and compressed and levelled off before the day's work comes to an end, with the result that nuisance of any kind is now at a minimum, complaints from the householders, occupiers, and business people of the neighbourhood have practically vanished and the whole reclaimed area presents a pleasing appearance to the eye, much to the delectation and happiness of the slum dwellers who occupy this section of Shanty Town.

At the moment I write the Swamp Road is coursing through the area and the site of dumping is advancing further and further out to sea, and it will not be long now before the rubble wall at the southern limit of this area will have been reached and the whole intervening area of swamp and sea reclaimed.

Already preparations are being made for the siting of buildings and factories in the section of this area which was reclaimed a few years ago and where subsidence has taken place to a sufficient extent to enable piles to be driven into the earth.

It is understood that this area will be zoned for certain trades and for occupations which give rise to nuisances of the type that have been classified under the name of offensive trades.

SANITARY INSPECTION OF THE DISTRICT

Premises and Occupations controlled by Bye-laws and Regulations

Food

Among the many responsibilities that devolve upon the Public Health Department of the City is that which relates to the provision of a good wholesome food supply to the City and the Sanitary Inspectors of the Department and the special Food Inspectors are engaged in a continuous day-to-day struggle with the manufacturers and vendors of foodstuffs, and particularly with the itinerant food vendors, in their efforts to secure a food supply that is free from contamination in the first place and adequate to meet the needs of the growing population of the City in the second place.

There can be no doubt whatsoever that the foodstuffs that are sold for human consumption within the limits of the City leave a lot to be desired in so far as clean handling and protection from sources of contamination are concerned and considering the progress that has been made since the coming into force of the Bye-laws for the sale of Foodstuffs in 1938, it will take us a good few more years before the food preparing and food selling public develop an understanding of and appreciation for, good clean and wholesome food.

Too many people who have no qualification whatsoever for the important task of handling, preparing, and selling food resort to this line of business because of the need to earn a livelihood, and scattered throughout the length and breadth of the City are those vendors in poor health, poorly, dirtily, and sometimes scantily clad, and with trays, carts, barrows and vehicles of all kinds that do not come up to the standard demanded by the Bye-laws.

It is indeed a reflection on the work of the Department that this most unsatisfactory state of affairs should persist, but short of resort to the process of law which has often to be done but which, to say the least, is cumbrous and uncertain in its results, these vendors will not and often cannot comply. It is no uncommon happening for a vendor to be convicted today and reprimanded and discharged, which is the usual type of penalty inflicted nowadays, and to commit tomorrow the same offence for which he was convicted the day before.

There are, of course, vendors who meet the requirements of the Bye-laws and offer their wares for sale under good hygienic conditions but the dirty vendors are permitted to thrive as well as the clean vendors by an undiscerning and not discriminating public who will give just as much custom to the one as to the other. When the public behaves in this manner, and when the dirty vendors who congregate outside schools, on footways, in the public places, and in the markets, are assisted so readily in the sale of their contaminated foodstuffs, it is not surprising that all the efforts of the Public Health Department come to naught.

Groceries, restaurants, shops and parlours on the whole, fall short of the requirements laid down by the Bye-laws though as may be expected there are many prominent exceptions, and here again persuasion has not had the rapid results that we had hoped for, and compulsion by law with again its uncertain results has to be resorted to.

Many of these shops and parlours are located on premises that are old and dilapidated, that have not been provided with what is necessary to insure good and clean food and cannot be so provided at reasonable cost, and because they have been established before the coming into force of the Bye-laws they cannot easily be closed with the result that trade has perforce to go on with the usual unsatisfactory results.

I have referred to the difficulties associated with this aspect of the work of the Department in the hope that the general public might become conscious of the problems confronting us and so make up their mind to play their part in securing the improvement that is so necessary now that we are the seat of the temporary capital of the Federation, and now that we are in fact being visited and can expect to be visited by numbers of health conscious officials and tourists, who whether they like or not must partake of foodstuffs whilst in our midst and on whose freedom from food poisoning or other ill effects whilst with us, our good name, in so far as food supply is concerned, must largely depend.

In these matters, as in all similar matters affecting the public health, Government, central as well as local, must give a lead and set the example. It is unfortunate, therefore, that there are a number of Institutions under the control of Local Government where foodstuffs are handled and exposed for sale in a manner that does absolutely no credit to the Council and even runs counter to the Bye-laws that the Local Authority seeks to enforce, and officers of the Local Authority are invariably placed in a most uncomfortable position when vendors who are being exhorted to provide themselves with covered trays and to protect their foodstuffs from contamination, point their finger at the Eastern Market, the Abattoir and the Fish Market where foodstuffs are exposed for sale often in the most unhygienic manner.

Sale of Foodstuffs Bye-laws

REGISTRATION OF SHOPS, ETC. (1957)

Provision, meat, and spirit shops, restaurants, hotels, refreshment parlours ...	236
Ground provision and fruit shops	21
Bakehouses	6
Confectionery shops	1
Aerated water factories	2
Other factories	9
Total 1957	275
Total 1956	326

REGISTRATION OF VENDORS (1957)

Bread and Cakes	64
Confectionery	78
Cooked food including fries, souse, &c.	92
Ice cream and palets	24
Sweet drinks	38
Vegetables, greens, fruits	157
Miscellaneous	89
Total 1957	542
Total 1956	402

Number of badges issued to itinerant vendors	473	(341-1956)
Number of oyster vendors licensed under Sale of Oyster Bye-laws	4	(Nil-1956)

Sale of Milk Bye-laws

Dairies and Milk Shops (1957)

Sub-Districts	*Cowshed Licences Issued*
City proper	—
East Dry River (unsewered)	—
Belmont (unsewered)	—
Belmont (unsewered)	—
Woodbrook (sewered, but premises not all connected with the sewerage system)	1
St. James (unsewered)	4
Total 1957	5
Total 1956	3

Dairymen's Licences (1957)

Dairymen's licences issued to cowkeepers and other purveyors of milk	5
Dairymen's licences issued to shops, milk bars and refreshment parlours	35
Total 1957	40
Total 1956	38

Milk Vendors' Licences and Badges (1957)

	Milk Vendors' Licences	*Cows Tuberculin Tested*	*Badges*
Port-of-Spain	40	236	6
Out-districts	10	88	10
Total 1957	50	324	16
Total 1956	102	342	73

FOODSTUFFS SEIZED OR SURRENDERED AND DESTROYED, 1957

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

Baking powder	...pounds	...	200	Meat (pickled)	...pounds	...	2,624
Beverage powder	...pounds	...	3	Meat (canned)	...pounds	...	1,919
Biscuit	...pounds	...	6	Milk (canned)	...pounds	...	269
Butter	...pounds	...	102	Milk (powdered)	...pounds	...	237
Carrots	...pounds	...	7,315	Milk solids	...pounds	...	7
Cereal Breakfast Food	...pounds	...	705	Mix, Cake	...pounds	...	1,188
Cheese	...pounds	...	237	Mix, Ice Cream	...pounds	...	60
Cheese (canned)	...pounds	...	9	Mushrooms	...pounds	...	656
Cheese and Macaroni (canned)	...pounds	...	4	Noodles	...pounds	...	100
Chicken (frozen)	...pounds	...	1,164	Nuts	...pounds	...	61
Condiments	...pounds	...	63	Oil, cooking	...pounds	...	3
Confectionery	...pounds	...	2	Onions	...pounds	...	35,880
Fish (canned)	...pounds	...	237	Peas (canned)	...pounds	...	8
Fish (corned)	...pounds	...	400	Peas (dried)	...pounds	...	23,540
Fish (smoked)	...pounds	...	108	Potatoes	...pounds	...	132,200
Fish (dried)	...pounds	...	102	Preserves	...pounds	...	40
Fish (wet)	...pounds	...	178	Rice	...pounds	...	60
Fish, Shell (canned)	...pounds	...	76	Salt	...pounds	...	33,660
Flour	...pounds	...	20,901	Sausages	...pounds	...	2,484
Foodstuffs, Miscellaneous (canned)	...pounds	...	54	Sausages (canned)	...pounds	...	1,735
Fruit (canned)	...pounds	...	60	Sugar	...pounds	...	233
Fruit (dried)	...pounds	...	1,116	Tea	...pounds	...	3
Fruit Juices	...pounds	...	133	Tomato Paste	...pounds	...	56
Ham (smoked)	...pounds	...	161	Tomato Juice	...pounds	...	73
Ham (canned)	...pounds	...	1,265	Vegetables (canned)	...pounds	...	27
				Vegetable Juice	...pounds	...	16
				Yeast	...pounds	...	100

Anti-Rat Measures

This service is the responsibility of the Anti-Rat Unit of the Department and is under the direction, supervision, and control of a Senior Sanitary Inspector who is also responsible for the work of the Anti-Rabies Unit. He has as assistants the Overseer and Sub-overseer of the Unit.

Operatives of the Unit are deployed in every sub-district of the City working in groups under the immediate charge of a supervisor.

Briefly the work is conducted on the basis of complaints which have to be attended to first, and then by means of surveys and poisoning operations which are determined by the routine house-to-house inspection and examination undertaken after complaints have been attended to, and which comprises the bulk of the work that is done in the afternoon.

The men of this Unit are on the whole capable, honest, and intelligent workers, many of whom have been with the Department for a number of years and have as a result acquired an insight into the work, and experience which is invaluable.

I need hardly state that, as is usual with all outdoor workers, there are occasions on which slackness, neglect and indifference have been noted and where the culprits have to be disciplined, but there are not too many of these breaches, though supervision is always necessary and can never be dispensed with. In fact the supervisors are given a district of their own that they have to take care of, but these are made purposely smaller to enable them to help, guide, control and direct the other members of the gang of which they are in charge.

The results of the work of the unit as demonstrated by the numbers of rats and mice caught cannot be considered unsatisfactory but it is gratifying to be able to record that it is not only by figures that the work of the Unit is judged; the numbers of complaints of rat nuisance have diminished greatly and in a population that is not slow to make complaints and who are more and more being taught to appreciate the benefits of a complete health service and the things that they have a right to expect from the Authority that provides the service, this is a most valuable sign that rat nuisance is abating and that the numbers of rats and mice are being brought under control.

The members of this Unit have all to undergo periodic training in the "science and art" of rat detection, in the identification of species and in the methods of application of and the dangers associated with, the newer rat poisons that have come on the market and they are given regular talks and lectures with a view to keeping them up to date. Before any operative is sent out into the field he has to undergo an intensive course of instruction which is usually undertaken by the Sanitary Inspector in charge, by the Overseer and Sub-overseer, and he has to satisfy the supervisors that he has sufficient knowledge to be sent out into the various districts.

No new poison was tried out in the year under report and the various poisoning operations were undertaken with one or other of the well known poisons, zinc phosphide, arsenious oxide or warfarin which is sold under the trade name of "sorexa". The latter poison continues to give satisfactory results and the rat population shows no sign of becoming immune to this poison or of being able to detect this poison in the various baits that are being laid.

A problem in the work of the Anti-Rat Unit that still remains to be solved, in spite of many and varied attempts at its solution, is the great prevalence of rat nuisance in the areas adjoining the City which gives rise to numbers of complaints to the Public Health Department of the City and to which we are bound to pay special attention in view of the fact that the City is the natural exit to these areas and invasion of the periphery can be and often is a natural consequence. It is unfortunate that the Local Health Authority of the County of St. George have not yet seen fit to organise a proper anti-rat service for the areas under their control and we often, with their knowledge and consent of course, have to send gangs in those areas to attend to these insistent complaints of rat nuisance.

Destruction of Rats and Mice, 1957

Rats caught by trappers	41,837
Rats bought	—
Total	41,837
Mice caught and destroyed	21,212

Examination of Rats by Government Bacteriologists

Rats examined for plague	41,837
Rats found infected with plague	—
Immature rats not examined	—

Species	*Decumanus*	*Rattus*	*Total*
Males	9,928	2,056	11,984
Females	21,379	8,474	29,853
Total	31,307	10,530	41,837

ANTI-MOSQUITO MEASURES

The work of the Anti-Mosquito Unit continues to show quite satisfactory results in so far as the campaign directed to the eradication of *aedes aegypti* is concerned and the *aedes* index is so low now and *aedes aegypti* still so sensitive to dieldrin that it is fairly safe to predict that if all goes as well as it is going now *aedes aegypti* eradication by the end of 1959 will be an accomplished fact in the City. The work, therefore, proceeds apace and we are keeping our fingers crossed.

The East Dry River section of the City and part of Woodbrook were sprayed with dieldrin insecticide towards the end of the year under report and at the time I write the spraying unit is operating in the St. James Area. It is confidently to be expected that the whole City will have been sprayed by the end of the current year.

The work of the Unit, in so far as the elimination of nuisance due to culicine mosquitoes is concerned, has not however yielded such dramatic results though the work cannot be described as unsatisfactory. This is due to the fact that no insecticide that has any outstanding killing effect on *culex fatigans* has as yet been discovered and the breeding places of these species of mosquitoes can on occasions be so hidden and obscure that breeding has been known to take place almost imperceptibly and it is only when adults appear that it is possible to trace the sources of the stagnant water in which these culicines breed.

The culex gangs of the Anti-Mosquito Unit which comprise men employed in disinfestation work; in clearing, levelling and filling in pools and depressions; men who operate ladders and inspect eaves gutters, and those who oil privy cesspits are engaged in performing their daily routine in the various sub-districts of the City, but it is surprising how rapidly water can collect and become stagnant in the City during the rainy season when showers are the order of the day and these collections of water soon attract culicines which lay their eggs and propagate their kind, to the annoyance of householders and sometimes the whole neighbourhood.

It is certain that the work in the future will have to be directed in greater measure to the prevention and elimination of breeding places, and the underground drains which are the main culprits in the central portion of the City will have to be freed from obstruction by refuse by regular flushing two or three times a week, which connotes, of course, an adequate supply of water for the purpose during the dry season, when these obstructions are wont to occur because of lack of the flushing effect of the storm water produced by the tropical downpours.

As in all cases where a nuisance is created and calls for abatement, the onus is on the person by whose act, default or sufferance the nuisance arises or continues and it is puerile for the householder to insist that the reponsibility is that of the Public Health Department alone when he is pestered with mosquito nuisance.

When complaints are insistent it is not uncommon to find that the householder himself is creating the nuisance by his lack of appreciation of the elementary principles of environmental hygiene and his failure to take the necessary measures to improve the standard of sanitation in, around and sometimes even beneath his own premises.

Here again it is gratifying to be able to record that the men who comprise the Unit have during the year under report demonstrated adequate knowledge of mosquito nuisance, have attained a considerable competence in the identification of species, and have the necessary experience to be able to locate almost immediately the source of mosquito breeding.

As with the Anti-Rat Unit, training goes hand in hand with work in the field and the weekly lectures and demonstrations serve to bring the members of the Unit up-to-date and to keep them keen and alert. Again no member of the Unit is permitted to take the field unless he has undergone an intensive course of practical training and has been able to satisfy the supervisors that he has attained the desired amount of knowledge to enable him to work satisfactorily in the various districts of the City to which he may be assigned.

LARVAL INDEX

Premises with mosquito larvae per cent. of number visited		
Yearly average	1938-1942	2.1
Year	1943	3.3
	1944	5.4
	1945	6.9
	1946	7.3
	1947	5.8
	1948	4.4
	1949	4.4
	1950	4.6
	1951	4.5
	1952	3.8
	1953	4.8
	1954	1.5
	1955	0.6
	1956	0.6
	1957	0.2

INSPECTION OF EAVES GUTTERS, ETC., 1957

Number of inspections of premises	140,641
Number of inspections of eaves gutters	31,603
Number of occasions found in good order	30,759
Number of occasions found defective	844
Number of occasions found containing water only	758
Number of occasions found containing water and larvae	86
*Number of occasions mosquito larvae were found in tubs, antiformicas, tin cans, &c.	558
Yards cleared of receptacles	9,987

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

No great progress in relieving the acute housing situation due to the chronic shortage of dwellings for the accommodation of members of the working class and for that much neglected and much misunderstood section of the community, the middle class, which has been growing progressively worse each year, can be recorded in the year under report. In fact the problem remains as acute as ever though at the moment I write the outlook is generally brighter in that dwellings for members of the working classes are beginning to make their appearance in various sections of the country, especially those that are being built on the basis of aided self-help projects and a Bill that has recently been enacted by the Legislature and which is entitled: An Ordinance to encourage and facilitate the construction of dwelling houses, No. 17 of 1958, makes provision for loans to be obtained from Government with greater facility than heretofore, to enable houses to be built on lands owned or leased by the applicant.

A survey of the area within the limits of the City would demonstrate the fact that very few dwelling houses to accommodate any section of the community have been built, and this is intimately bound up with the fact that the number of vacant building lots in the City is strictly limited and reconstruction of existing dwellings is practically impossible because of the difficulty in getting tenants to vacate occupied premises due to the acute lack of alternative accommodation. In fact this latter state of affairs is so prevalent that the Courts' "lists" are congested with applications to eject tenants and ejectment proceedings are taking place almost every day.

Dwellings in the down-town areas of the City and in certain sections of the East Dry River and Belmont districts are now so dilapidated and in such a state of disrepair that with every heavy downpour or severe windstorm collapse of a dwelling or two takes place leaving numbers of residents with no accommodation whatsoever and the same occurs with some degree of regularity whenever a fire occurs in these areas.

The result of all this is that nearly every shack, every box room, every extra kitchen, every outhouse is now occupied as a dwelling house and the problems of general sanitation, of proper cooking accommodation, of the efficient disposal of refuse and faecal matter, are sufficient to tax the knowledge, wisdom and experience of officers of the Public Health Department to a degree hitherto unknown. And the Department is worried at the possibility that their defences may, at any moment, be breached and a case of infectious disease starting in these areas may, in these circumstances, not be promptly detected and isolated, and may be the starting point of a disastrous epidemic. The Department is fully aware of this possibility and is on the alert, but is nevertheless conscious that these possibilities are not so remote as not to give rise to misgivings, and must be taken seriously.

In nearly every annual report I have been drawing the attention of the powers that be to these potential dangers, and to the fact that every citizen is entitled to be housed decently, to be properly clad and adequately fed, and to live in surroundings that he can take pride in, in which his family and himself could thrive and be happy, and in which children can be brought up, sound in mind and body, but it has been a cry in the wilderness though as I have stated before the signs at the moment are auspicious.

The Planning and Housing Commission who is charged with clearing the remaining slums in the declared slum clearance areas continued this important piece of work in the year under report, but due to limited funds at their disposal, at a pace which if not accelerated will take at least a decade to eliminate the remaining slums in the City, and let it not be said that there are now just a few slum areas remaining in the City. That is far from the truth. There are quite a number of barrack ranges still persisting in the down-town areas of the City though they are mostly hidden by the façade of a new business place recently reconstructed at the entrance to the lot where these barracks are located.

N.B.—*Occasions on which mosquito larvae were found by sanitary inspectors, during the course of 94,954 inspections of premises, are included in above figure.

In addition, numbers of dwelling houses built as cottages and meant to be occupied as such are, as a result of the acute housing shortage, tenanted as apartments and are even occupied as barracks in the Belmont, East Dry River and even in the St. James Sub-districts. It is not difficult to appreciate the fact that in these circumstances the necessary accommodation for the cooking of food and the sanitary conveniences for the disposal of refuse and excreta are taxed to the utmost and these areas bid fair to be converted into slum areas if the situation is not rapidly and vigorously tackled.

John John and Shanty Town

These eyesores in the eastern limits of our City at the very entrance to the business section continue to thrive and to furnish the blot on the eastern landscape that they have been doing for the last ten or fifteen years. I need hardly state that they get more congested and more heavily populated with each ensuing year and as a direct result the state of insanitation and the lack of sanitary conveniences get progressively more acute.

Water supply in these areas is inadequate in most places and non-existent in others, a few primitive privy cesspits serve the entire area and many premises are without any means for disposal of faecal matter; and refuse is thrown indiscriminately helter-skelter all over the place and sometimes deposited at inconveniently placed and inaccessible locations.

The residents of these areas are usually displaced persons of no fixed abode and without any regular means of employment and they endeavour to earn a livelihood and eke out a living by doing odd jobs, some selling second-rate foodstuffs in hastily improvised shops and parlours and in ramshackle carts and barrows; others rear poultry and pigs which are allowed to roam on the adjoining Dump and in the immediate neighbourhood, even penetrating sometimes the very heart of the City; while others again salvage bottles and tins and other bits and pieces of serviceable material from the Dump, having in some cases to search and dig into the refuse that has already been disposed of and covered over with a layer of earth by the method of "controlled tipping".

It is therefore clear that not only is the work on the Dump interrupted and held up by these Shanty Town and John John dwellers, who are known to be amenable to no kind of discipline and to brook no interference, but the work of "controlled tipping" on which depends the abatement and prevention of nuisance is undone as well and has to be done over again.

It is true that plans have already been formulated for the laying out of these areas, for the proper accommodation of those who dwell here in areas immediately adjoining, and for putting these lands to better and more sanitary use, but nothing to this end was done in the year under report, and up to the time of writing this report these areas still continue to present the numerous problems of insanitation, of congestion and overcrowding and of anti-social conduct that they have been presenting for more years than I care to remember.

HEALTH EDUCATION

It has been becoming increasingly clear with each succeeding year that a properly organised and fully equipped Health Education Unit is a *sine qua non* if the work of the Public Health Department is to reach every corner of the Urban Sanitary District and bring its influence to play on every section of the community and so gain the intelligent appreciation and ready co-operation of all residents of the City. That does not mean to say, of course, that health education did not form part and parcel of the work of the Department and it was not being put into practice by the staff of Sanitary Inspectors and other personnel attached to the Department.

Far from it.

But for a long time compulsion was the order of the day, nuisances were being detected and statutory notices were being served to abate these nuisances; there was always the threat that the process of law would be resorted to to secure compliance with the terms of the notice and almost invariably the process of law was invoked. There was, however, all along the feeling that the occupier or owner was being forced to do something that he did not quite understand and therefore could not believe in, and besides in the case of the more persistent and chronic type of offender particularly the penalties imposed were not such as to deter him from committing the same offence over and over again. In fact, time and again the public health officer was assailed by the latter type of person with the information that he did not intend to comply with the requirements of the Department and that he was prepared at all times to pay the penalty. On occasions such as these, and at other times as well, no opportunity was lost to impress upon the Sanitary Inspectors that an integral and essential part of their duty was the health education of the householder and other members of the public that they come into contact with during their daily routine. Every Inspector was directed to seek the co-operation of the householder in his day-to-day work of house inspection by taking time off to explain the nature of the work he was seeking to perform and what benefit would accrue from a proper understanding of and active co-operation in, the measures he was advocating.

I am satisfied that in this way a good deal of health education was actually done and is still being actively done by the District Sanitary Inspector and I am convinced that if the ensuing years brought better co-operation and a greater willingness to apply the measures that were being advocated this could be attributed to the success of the health education work done by the District Sanitary Inspector.

Within the last five years, however, health education has been becoming more and more of a specialty and specialised means and methods were becoming such an established part of health education that it was obvious that only an officer with special aptitude for and specialised training in, this kind of work could with success devote his whole time and energy to the proper and effective health education of the public.

In September, 1953, therefore, a Grade A Sanitary Inspector was selected because of his special flair for health education to proceed to the United Kingdom, and after completing a two-year course in health education sat and obtained the Diploma in the content and methods of Health Education of the University of London and returned to us in August 1955. He was immediately put in charge of a Health Education Unit as such with the primary and specific objective of inculcating in the citizens of the Urban Sanitary District an understanding and appreciation of the health problems in their particular areas and so obtaining their co-operation and collaboration with a view to the gradual elimination of the police methods that we had consistently to resort to in the existing circumstances.

This Unit has been functioning ever since and though not yet fully equipped with our own Mobile Cinema or even with a Film Library of our own, for which incidentally provision has been made in the 1959 Estimates, it is possible to record that satisfactory and heartening progress has been made.

The work of the Health Education Unit of the Department has demonstrated clearly that people tend to discard their misconceived notions, shed firmly ingrained prejudices and are ready and willing to accept modern ideas and new information, to apply the knowledge so gained and to help themselves by doing things for themselves. The Unit has set as its aim the enlistment of the help and goodwill of every section of the community and in whatever section of the City it may be operating it seeks the help and co-operation of the various welfare bodies, the religious organisations, and the voluntary workers that operate in the area.

During the year under review three community health education projects were undertaken: the East Dry River Community Clean-up Drive, the Belmont Community Clean-up Drive and the City-wide Clean Food Campaign. In addition the Unit participated in the Annual Tuberculosis Prevention Week organised by the Trinidad and Tobago Association for the prevention of Tuberculosis. The East Dry River and Belmont Clean-up Drives were organised and executed with the help of the churches, schools, welfare bodies and voluntary workers in the area, representative members from whom together with members of the Public Health Department formed the Health Education Working Committee of the District. Public meetings in which talks were given and films shown, and Group Discussion Meetings in which the Health Education Officer led the group in free discussions with the use of visual aids, were held.

The results achieved from these Clean-up Drives were greatly encouraging and gave rise to a great deal of satisfaction.

The City-wide Clean Food Campaign was organised by the Department with the help of the Health Department of Government, the Education Department of Government, and the St. John Ambulance Association. It was launched officially by His Worship the Mayor of Port-of-Spain, Councillor Louis Rostant, J.P., at a public meeting in Woodford Square on the evening of 11th March, 1957 and ended on the 13th June, 1957, the last date of the examination set for food handlers.

The campaign was conducted by means of courses of lectures, by demonstrations, discussions, visits and film shows, by a Clean Food Exhibition, by mass public meetings, and by radio and press reports. The Clean Food Booth organised at the Caribbean Exhibition 1957, continued its activities for 17 days and thousands of people visited the Booth, saw and examined the various exhibits, and acquired knowledge and experience in the methods of handling, preparing and selling food under good clean and wholesome conditions. The Booth was awarded a Certificate of Merit by the Management Committee for the Exhibition.

As usual the Health Education Unit collaborated with Trinidad and Tobago Association for the prevention of Tuberculosis by the provision of posters and leaflets for distribution to the whole Colony, by participation in radio and press features, and by organising the Public Meeting in Woodford Square which closed the week's programme of events.

It is my duty to record here the grateful thanks of the Local Authority in general and the Public Health Department in particular to the Caribbean Commission, the United States Information Service, the British Council, the Health Department of Government, and particularly its Mobile Cinema Unit, the Information Office of Government and the United Kingdom for the use of their films, their 16 mm. projectors and for the time, energy, enthusiasm and goodwill of their operatives.

VITAL STATISTICS OF THE DISTRICT

Comparative Summary of Vital Statistics

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

	1921	1955	1956	1957
Area of City—acres (pastures and open spaces included)	1,793	2,550	2,550	2,550
Estimated population (mean) ...	61,386	117,000	120,000	120,650
Density of population (persons per acre)	34.2	46	47	47
Total live births	1,687	3,078	2,621	2,735
Birth rate	2,728	2,631	2,184	2,267
Still births registered	154	89	67	78
*Still birth rate	91.3	28.92	25.56	28.52
Total deaths	1,659	1,067	1,120	1,134
Death rate	2,683	903	933	940
Natural increase of population ...	28	2,011	1,501	1,601
Death under one year	287	138	158	127
*Infant mortality rate	170.12	44.83	60.28	46.44
*Maternal mortality rate	—	5·20	4.19	1.46
Death Rates :				
Notifiable infectious diseases	621	72	71	80
Pulmonary tuberculosis	249	12	11	11
Tuberculosis (other forms)	26	3	2	—
Enteric fever	125	1	—	—
Pneumonia (all forms)	197	56	56	69
Bronchitis	136	21	10	16
Diphtheria	2	1	—	1
Malaria	89	—	1	—
Syphilis	21	10	15	11
Diarrhoea and enteritis	191	38	47	29
Influenza	26	—	1	6
Ankylostomiasis	15	1	—	—
Bright's disease and nephritis ...	209	19	22	17
Diseases of the heart and blood vessels	265	221	239	264
Diseases of the nervous system including cerebral haemorrhage	170	144	132	149
Cancer and other malignant diseases	63	89	87	84

Acreage and Population

There was no change in the acreage of the City during the year 1957. The number of acres included within the limits of the City remained at 2,550, 299 of which comprise the Queen's Park Savannah which is the main lung of the City of Port-of-Spain and wherein are situated the Trinidad Turf Club and numerous cricket and football pitches for the various sporting clubs and associations that have their headquarters within the limits of the City.

Since the inclusion of the 168 acres of reclaimed lands south of Wrightson Road in the King's Wharf and Docksite and Pumping Station areas which made the southern boundary of the City "the Sea wherever it is and wherever it is likely to be in the future" as defined by statute, no new area has been included within the limits of the City.

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*Per 1,000 births.

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

Colony's Mean Population: 764,900

The density of the population remained at 47 persons per acre such as it was in the previous year; this represents an increase of 12.8 persons per acre as compared with the corresponding figure for 1921, viz. 34.2 persons per acre. The estimated mean population, i.e. the population at the end of June, 1957, worked out to be 120,650, an increase of 650 souls compared with the figure of 120,000 for the year 1956. The natural increase of population was calculated to be 1,601, 100 more when compared with the figure for the previous year, 1,501.

No great degree of accuracy can be claimed for these figures seeing that the population figure is arrived at on the basis of a formula in the Registrar General's Department; we have, however, reason to believe that the actual population figure is greater than the estimated. This we shall know for certain in the year 1960 when a census is due to be taken and when the resident population will be actually enumerated. The last census was held in April, 1946 when the number of persons resident in the City was counted at 93,198.

Births and Birth Rates

The number of births of infants that took place within the limits of the City, the place of usual residence of whose parents was located in premises in the City was 2,735 in the year under report, an increase of 114 as compared with the figure for 1956 viz. 2,621. This figure is much lower than those recorded three years ago, i.e. in 1954, because of the fact that we have been able to persuade the Hospital Authorities to furnish the Department with a full detailed list of all births, including the addresses of parents, which took place in the General Hospital such as we have always had from Registrars of the various districts of the City, and by a process of elimination we have been able to get a fairly accurate picture of the birth rate in so far as it applies to actual residents of the City.

When it is possible further to examine and analyse the returns from the Registrars, Nursing Homes, and Hospitals outside the limits of the City it may be possible to add to this number of births the births that relate to City residents but which occur at these districts outside the limits of the City and so obtain a still more accurate figure for the birth rate, but this latter factor is not one of great magnitude and it does not appear that it is responsible for any large error in the figures here presented.

Deaths and Death Rates

Deaths registered in the year under report numbered 1,134 giving a death rate of 940 per 100,000 population which is higher by 7 than the corresponding death rate of 933 for 1956.

These figures can be stated to possess a high degree of accuracy, as we have always had the benefit not only of the names but also of the addresses of the deceased and it has always been possible to determine the place of usual residence of those who died within the limits of the City.

The rate of 940 per 100,000 population though higher than that for the previous year cannot be considered a high death rate and it compares not unfavourably with that for other tropical cities with greater resources and better facilities. This rate will fall progressively in the coming years when the contemplated major works of drainage and sewerage and the widening and paving of lanes and tracks, &c., are set on foot, and when the plans for the provision of an adequate water supply are put into execution and completed.

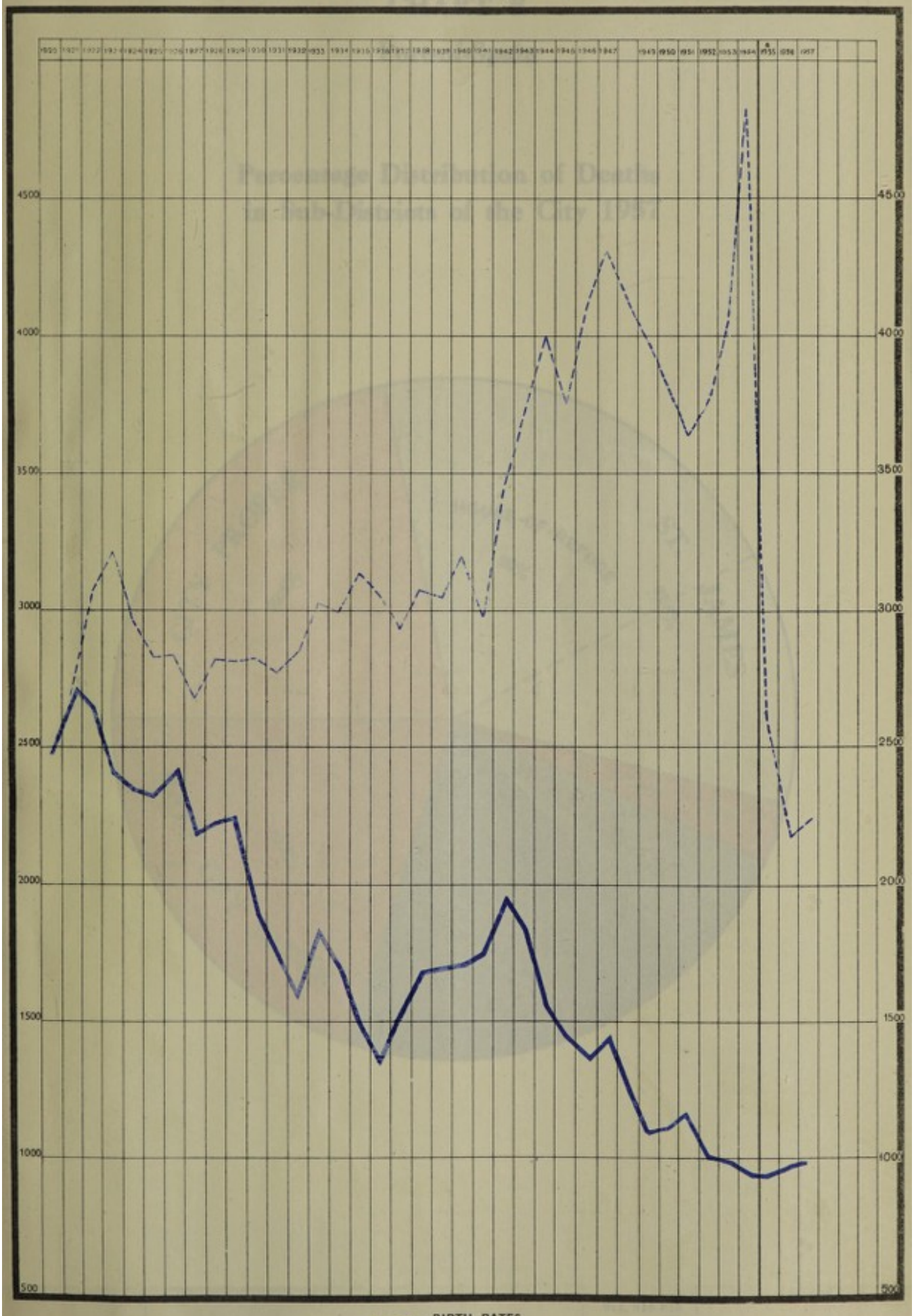
Births and Deaths Rate, 1957

Births, 1957				Deaths, 1957			
Males	Females	Both Sexes	Birth Rate per 100,000 Population	Males	Females	Both Sexes	Death Rate per 100,000 Population
1,405	1,330	2,735	2,267	556	578	1,134	940

Deaths in Sub-Districts of the City, 1957

Sub-District	Mean Population	Deaths				Total Deaths Sub-Districts	Rate per 100,000 Population
		Place of Occurrence					
		Home, &c.	General Hospital	Royal Gaol	House of Refuge		
City Proper	41,510	136	112	6	—	254	210
St. Clair	2,023	29	1	—	—	30	26
East Dry River	26,779	96	129	—	—	225	186
Belmont	20,861	126	66	—	—	192	159
Woodbrook	15,311	33	31	—	—	64	53
St. James	14,166	80	62	—	227	369	306
Total	120,650	500	401	6	227	1,134	940

CHART A
Port-of-Spain
Birth Rates & Death Rates per 100,000 Population 1920-1957



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

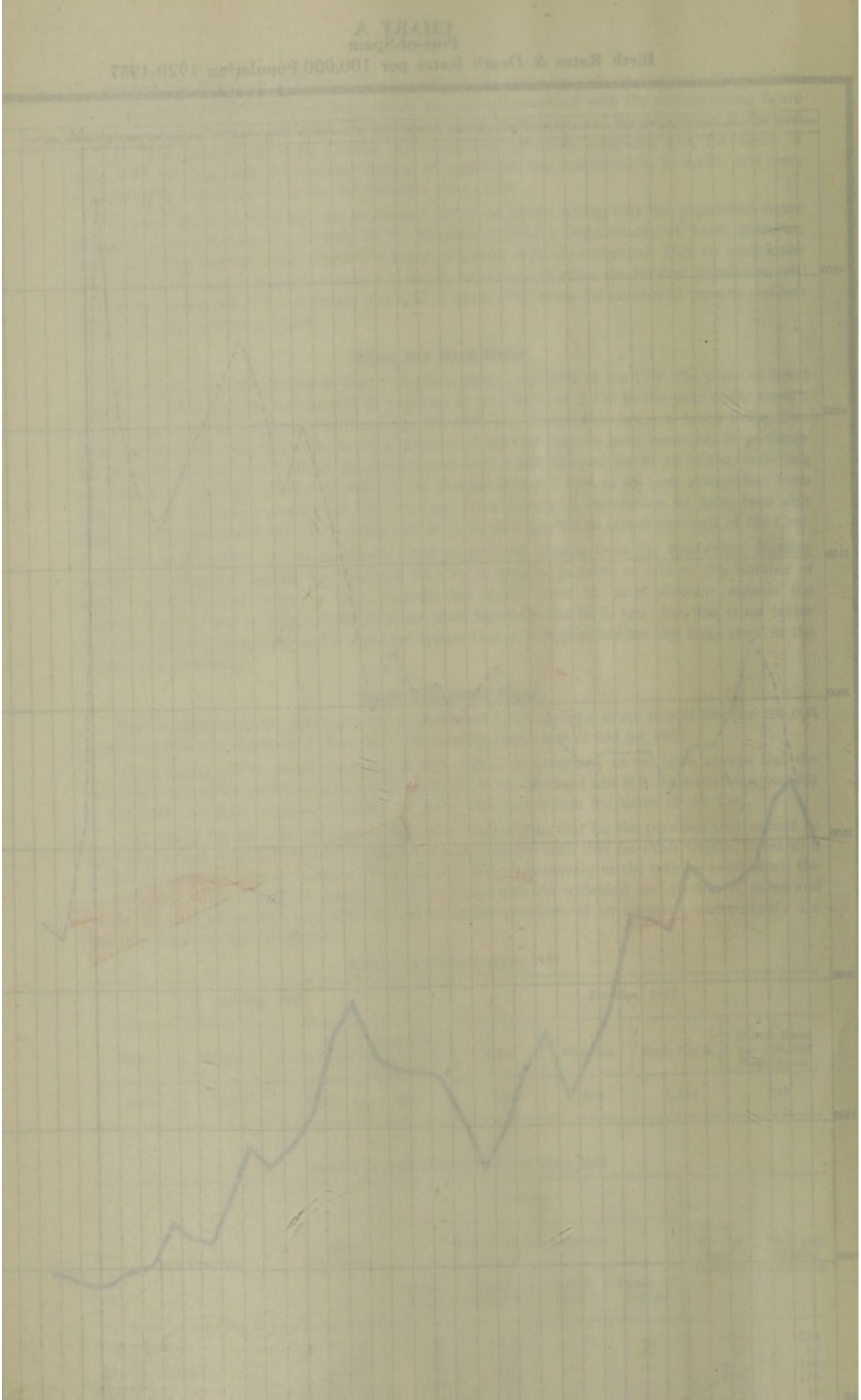


CHART B

Port-of-Spain

Percentage Distribution of Deaths in Sub-Districts of the City 1957

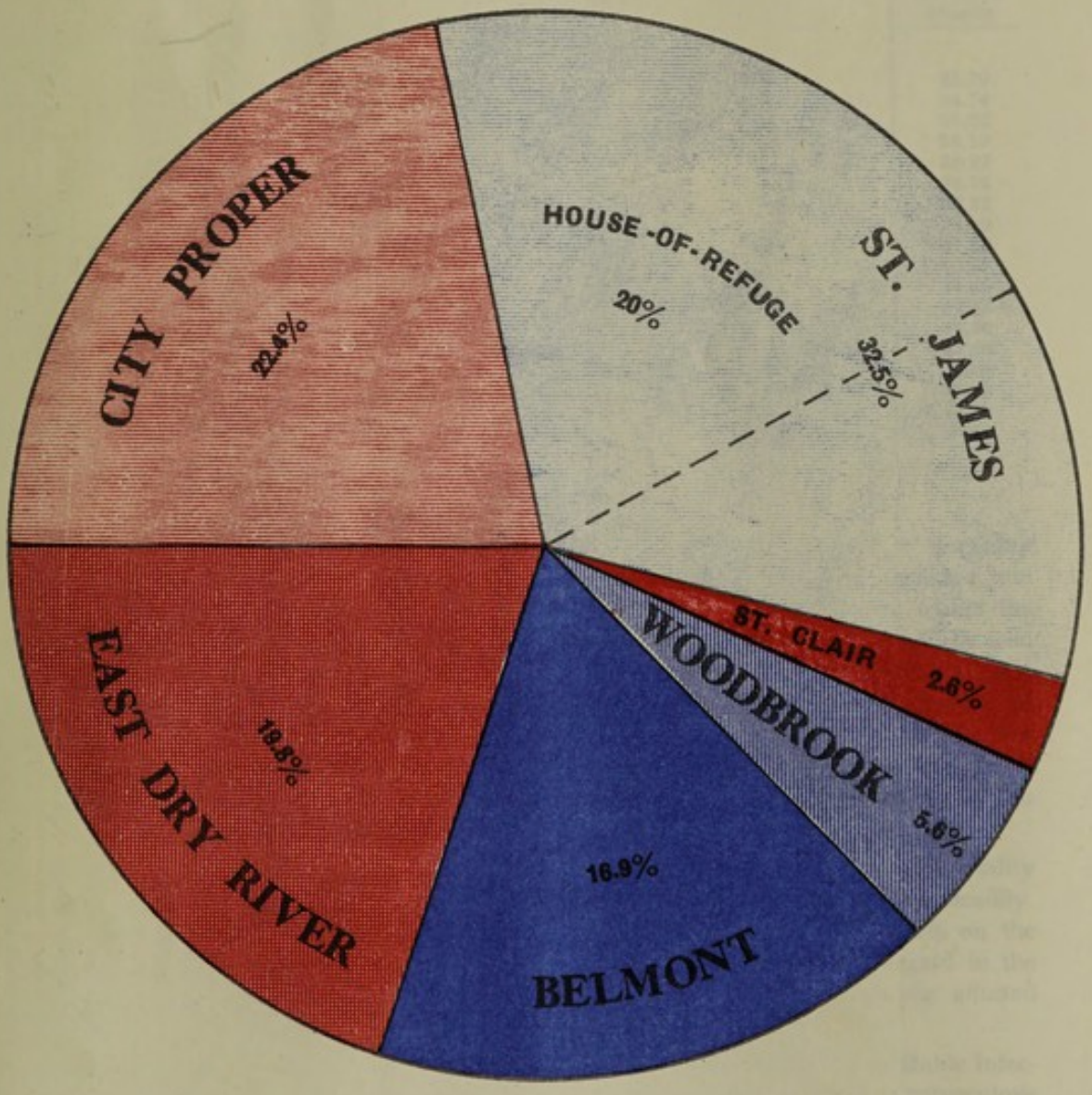


CHART B

Port-of-Spain

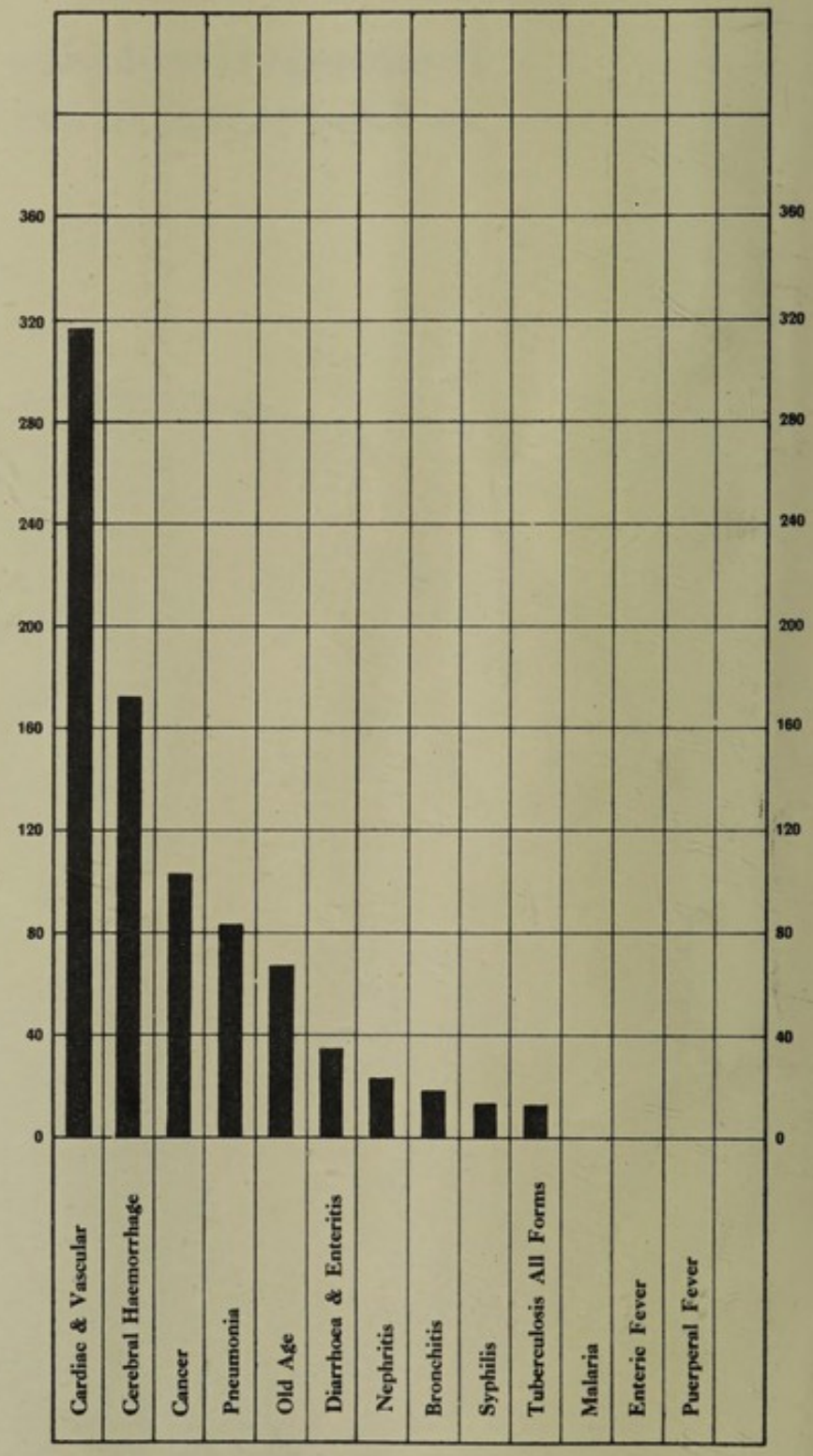
Percentage Distribution of Deaths
in Sub-Districts of the City 1957

CHART C

Port-of-Spain

Principal Individual

CAUSES OF DEATHS 1957



Age Distribution of Deaths, 1957

Period	Males	Females	Both Sexes	Percentage of Total Mortality at All Ages
Under 1 year	75	52	127	11.20
1– 5 years	23	12	35	3.09
6–10 do.	7	5	12	1.06
11–20 do.	14	5	19	1.67
21–30 do.	14	8	22	1.94
31–40 do.	19	24	43	3.79
41–50 do.	58	36	94	8.29
51–60 do.	87	68	155	13.67
Over 60 years	259	368	627	55.29
Total	556	578	1,134	—

Comparison of Deaths at different Age Periods, 1928-57

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
1954 ...	1,028	150	14.59	36	3.50	79	7.69	484	47.08
1955 ...	1,067	138	12.93	27	2.53	78	7.31	542	50.80
1956 ...	1,120	158	14.11	32	2.86	85	7.59	581	51.88
1957 ...	1,134	127	11.20	35	3.09	86	7.58	627	55.29

Causes of Deaths

Deaths are now classified in accordance with the Intermediate List of 150 causes of Morbidity and Mortality of the International Statistical Classification and all death returns in Trinidad and Tobago are now coded accordingly. If, therefore, the 1,134 deaths which occurred within the limits of the City during the year under report are coded in accordance with this list, it will be seen that the diseases which have claimed the largest numbers of victims follow practically the same pattern that we have grown accustomed to during the past five years, viz. the largest number of deaths was caused by diseases of the circulatory system 318, with vascular lesions affecting the central nervous system, 171, in the second place; diseases of the respiratory system, 122, third; cancer and other malignant diseases, 102, fourth; notifiable infectious diseases, 97, fifth; certain diseases of infancy, 70, sixth; and senility with 68 victims, seventh.

Year after year diseases of the circulatory system continue to exact a high toll of mortality and the number of deaths attributable to this group of diseases is increasing slowly but steadily. Nothing seems to be able to halt the onslaught of the stresses and strains of modern life on the delicate tissues of the heart and circulatory system, and the same may be said in regard to the circulatory system of the brain and central nervous system which is just as frequently affected and with equally disastrous results.

It is remarkable what a change has come about in the list of deaths caused by notifiable infectious diseases, the two principal killing diseases being now pneumonia and pulmonary tuberculosis with pneumonia claiming now six times as many victims as pulmonary tuberculosis. In fact, except for one death certified to diphtheria, of the 97 deaths recorded, 83 were due to pneumonia, and 13 to pulmonary tuberculosis.

Causes of Deaths, 1957—(International Classification)

Intermediate List No.	Cause Groups	Detailed List No.	Total
	1—Infective and Parasitic Diseases		
A 1	Tuberculosis of respiratory system	001–008	13
A 2	Tuberculosis of meninges and central nervous system	010	—
A 3	Tuberculosis of intestines, peritoneum and mesenteric glands ...	011	—
A 4	Tuberculosis of bones and joints	012	—
A 5	Tuberculosis, other forms:		
	02 All other forms	014, 016–019	
A 6	Congenital Syphilis	020	—
A 8	Tabes Dorsalis	024	—
A 9	General paralysis of insane	025	—

Causes of Deaths, 1957—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	I—Infective ad Parasitic Diseases—Continued		
A 10	All other syphilis	026–029	13
A 11	02 Other gonococcal infections	031–035	—
A 12	Typhoid fever	040	—
A 13	02 Other Salmonella infections	042	—
A 16	Dysentery, all forms:		
	01 Bacillary dysentery	045	1
	02 Amoebiasis	046	1
	03 Other unspecified forms of dysentery	047, 048	—
A 20	Septicaemia and pyaemia	053	2
A 21	Diphtheria	055	1
A 22	Whooping cough	056	—
A 23	Meningococcal infections	057	1
A 25	Leprosy	060	1
A 26	Tetanus	061	4
A 29	Acute infectious Encephalitis	082	1
A 32	Measles	085	1
A 34	Infectious hepatitis	092	4
A 37	03 Falciparum malaria (malignant tertian)	112	—
A 41	Ankylostomiasis	129	—
A 42	04 Other disease due to helminths	130.0	1
A 43	All other diseases classified as infective and parasitic:		
	01 Lymphgranuloma venereum	037	—
	02 Granuloma inguinale, venereal	038	—
	08 Chicken pox	087	—
	22 Herpes zoster	088	—
	25 All other diseases classified as infective and parasitic ...	132–134	—
	II—Neoplasms		
A 44	Malignant neoplasm of buccal cavity and pharynx	140, 148	2
A 45	Malignant neoplasm of oesophagus	150	2
A 46	Malignant neoplasm of stomach	151	21
A 47	Malignant neoplasm of intestine, except rectum	152, 153	6
A 48	Malignant neoplasm of rectum	154	2
A 49	Malignant neoplasm of larynx	161	2
A 50	Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	162, 163	5
A 51	Malignant neoplasm of breast	170	11
A 52	Malignant neoplasm of cervix uteri	171	6
A 53	Malignant neoplasm of other unspecified parts of uterus	172–174	12
A 54	Malignant neoplasm of prostate	177	6
A 55	Malignant neoplasm of skin	190–191	1
A 56	Malignant neoplasm of bone and connective tissue	196, 197	—
A 57	Malignant neoplasm of all other and unspecified sites	155–160 175, 176 198, 199	22
A 58	Leukaemia and Aleukaemia	204	2
A 59	Lymphosarcoma and other neoplasms of lymphatic system ...	200–203 205	2
A 60	Benign neoplasms and neoplasms of unspecified nature	210–239	1
	III—Allergic, Endocrine System, Metabolic, and Nutritional Diseases		
A 62	Thyrotoxicosis with or without goitre	252	—
A 63	Diabetes mellitus	260	36
A 64	Avitaminosis and other deficiency states:		
	01 Beri Beri	280	—
	04 Vitamin B deficiency, except beri beri and pellagra ...	286.2	—
	05 Other deficiency states	283–286	3
	IV—Diseases of the Blood and Blood-Forming Organs		
A 65	Anaemias:		
	01 Pernicious and other hyperchromic anaemias	290	2
	03 Other specified and unspecified anaemias	292, 293	1
A 66	Allergic disorders, all other endocrine, metabolic and blood diseases:		
	01 Asthma	241	2
	02 All other allergic, disorders, endocrine, metabolic and blood diseases	253	1
	V—Mental, Psychoneurotic and Personality Disorders		
A 67	Psychoses	300–309	—
A 68	Psychoneuroses and disorders of personality	310–324 326	—
	VI—Diseases of the Nervous System and Sensory Organs		
A 70	Vascular lesions affecting central nervous system	330–334	171
A 71	Nonmeningococcal meningitis	340	3
A 72	Multiple sclerosis	345	1
A 73	Epilepsy	353	—
A 77	02 Otitis media and mastoiditis	391–393	—
A 78	02 All other diseases of the nervous system and sense organs ...	341–344 350–352 354–357 360–369 395–398	5

Causes of Deaths, 1957—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	VII—Diseases of the Circulatory System		
A 79	Rheumatic fever	400–402	—
A 80	Chronic rheumatic heart disease	410–416	4
A 81	Arteriosclerotic and degenerative heart disease	420–422	231
A 82	Other diseases of the heart	430–434	22
A 83	Hypertension with heart disease	440–443	32
A 84	Hypertension without mention of heart	444–447	14
A 85	Diseases of arteries	450–456	12
A 86	Other diseases of the circulatory system	460–468	3
	VIII—Diseases of the Respiratory System		
A 87	Acute upper respiratory infections	470–475	—
A 88	Influenza	480–483	7
A 89	Lobar pneumonia	490	24
A 90	Broncho pneumonia	491	45
A 91	Primary atypical, other, and unspecified pneumonia	492, 493	14
A 92	Acute bronchitis	500	11
A 93	Bronchitis, chronic and unqualified	501, 502	8
A 95	Empyema and abscess of lung	518, 521	—
A 96	Pleurisy	519	—
A 97	All other respiratory diseases:		
	01 Pneumoconiosis	523	—
	02 All other respiratory diseases	511–517 520–522 524–527	13
	IX—Diseases of the Digestive System		
A 99	Ulcer of stomach	540	3
A100	Ulcer of duodenum	541	—
A101	Gastritis and duodenitis	543	1
A102	Appendicitis	550–553	5
A103	Intestinal obstruction and hernia	570	7
A104	Gastro-enteritis and colitis, except diarrhoea of the newborn:		
	01 Gastro-enteritis and colitis between 4 weeks and 2 years	571.0	29
	02 Gastro-enteritis and colitis, ages 2 years and over	571.1	6
	03 Chronic Enteritis and ulcerative colitis	572	4
A105	Cirrhosis of Liver	581	13
A106	01 Cholelithiasis	584	—
	02 Cholecystitis without mention of calculi	585	—
A107	Other diseases of digestive system	536–539 542–544 545 573–580 582–583 586–587	5
	X—Diseases of the Genito-Urinary System		
A108	Acute Nephritis	590	1
A109	Chronic and other unspecified nephritis	591–594	19
A110	Infections of kidneys	600	4
A111	Calculi of urinary system	602–604	—
A112	Hyperplasia of prostate	610	4
A114	02 Disorders of menstruation	634	—
A114	03 All other diseases of the genito-urinary system	601–603 605–609 611, 612 614–617 622–623 635–637	3
	XI—Deliveries and Complications of Pregnancy, Childbirth, and the Puerperium		
A116	01 Puerperal eclampsia	685	—
	02 All other toxaemias of pregnancy and the puerperium	642, 652, 686	—
A117	Haemorrhage of pregnancy and childbirth:		
	01 Placenta praevia	643	—
	02 Haemorrhage of pregnancy	644, 670	2
A118	Abortion without mention of sepsis	650	—
A119	Abortion with sepsis	651	—
A120	All other complications of pregnancy and childbirth:		
	01 Ectopic pregnancy	645	1
	03 Delivery complications	673–675	—
	04 Other complications of pregnancy	646, 648 649, 676 680, 683	2
	XII—Diseases of the Skin and Cellular Tissues		
A121	Infections of skin and subcutaneous tissue	690–698	
	XIII—Diseases of the Bones and Organs of Movement		
A122	Arthritis and spondylitis	720–725	4
A123	Rheumatism unspecified	726–727	—
A124	Osteomyelitis and Periostitis	730	1
A126	All other diseases of the skin and musculoskeletal system:		
	01 Chronic ulcer of skin	715	—
	02 All other diseases of skin	716	2
	03 All other diseases of musculoskeletal system	731–736 738, 744	—

Causes of Deaths, 1957—(International Classification)—*Continued*

Intermediate List No.	Cause Groups	Detailed List No.	Total
	XIV—Congenital Malformations		
A127	Spina bifida and meningocele	751	—
A128	Congenital malformation of Circulatory System	754	4
A129	All other congenital malformations	750–752 753, 755 759	3
	XV—Certain Diseases of Early Infancy		
A130	Birth Injuries	760–761	1
A131	Post-natal asphyxia and atelectasis	762	9
A132	Infections of the newborn:		
	01 Diarrhoea of newborn (under 4 weeks)	764	2
	03 Sepsis of newborn	767, 768	—
	04 Other infections of newborn	763–766	—
A133	Haemolytic diseases of newborn	770	3
A134	All other defined diseases of early infancy:		
	02 Haemorrhagic disease of newborn	771	3
	03 Nutritional maladjustment	772	8
A135	Ill-defined diseases peculiar to early infancy and immaturity unqualified	773, 776	44
	XVI—Symptoms, Senility and Ill-defined Conditions		
A136	Senility without mention of psychosis	794	68
A137	01 Pyrexia of unknown origin	788.8	1
	03 Certain symptoms referable to nervous system and special senses	780	—
	04 Other symptoms referable to nervous system	781	—
	05 Symptoms referable to cardio-vascular and lymphatic system	782	1
	06 Symptoms referable to respiratory system	783	—
	08 Symptoms referable to abdomen and lower gastro-intestinal system	785	1
	12 Nervousness and debility	790	—
	14 Uraemia unqualified	792	3
	15 Ill-defined and unknown causes of mortality	795	16
	16 Other general symptoms	788.1–788.9	—
	"E" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (External Cause)		
AE138	Motor Vehicles Accident	E810–E825	5
AE140	Accidental poisoning	E870–E985	—
AE141	Accidental falls	E900–E904	3
AE142	Accident caused by machinery	E912	—
AE146	Accidental drowning	E929	2
AE147	02 Foreign body entering other orifice	E928	1
	05 All other accidental causes	E910–E911	—
AE148	Suicide and self-inflicted injury	E970–E979	3
AE149	Homicide and Judicial Execution	E980–E985	8
	"N" XVII—Code Alternative Classification of Accidents, Poisonings, and Violence (Nature of Injury)		
AN138	Fracture of skull	N800–N804	8
AN139	Fracture of spine and trunk	N805–N809	1
AN140	Fracture of limbs	N810–N829	2
AN143	Head injury (excluding fracture)	N850–N856	1
AN144	Internal injury of chest, abdomen and pelvis	N860–N869	—
AN145	Laceration and open wounds	N870–N908	1
AN147	Effects of foreign body entering through orifice	N930–N936	1
AN148	Burns	N940–N949	1
AN149	Effects of poisons	N960–N979	1
AN150	All other and unspecified effects of external causes	N950–N959 N980–N999	1
	Grand Total		1,134

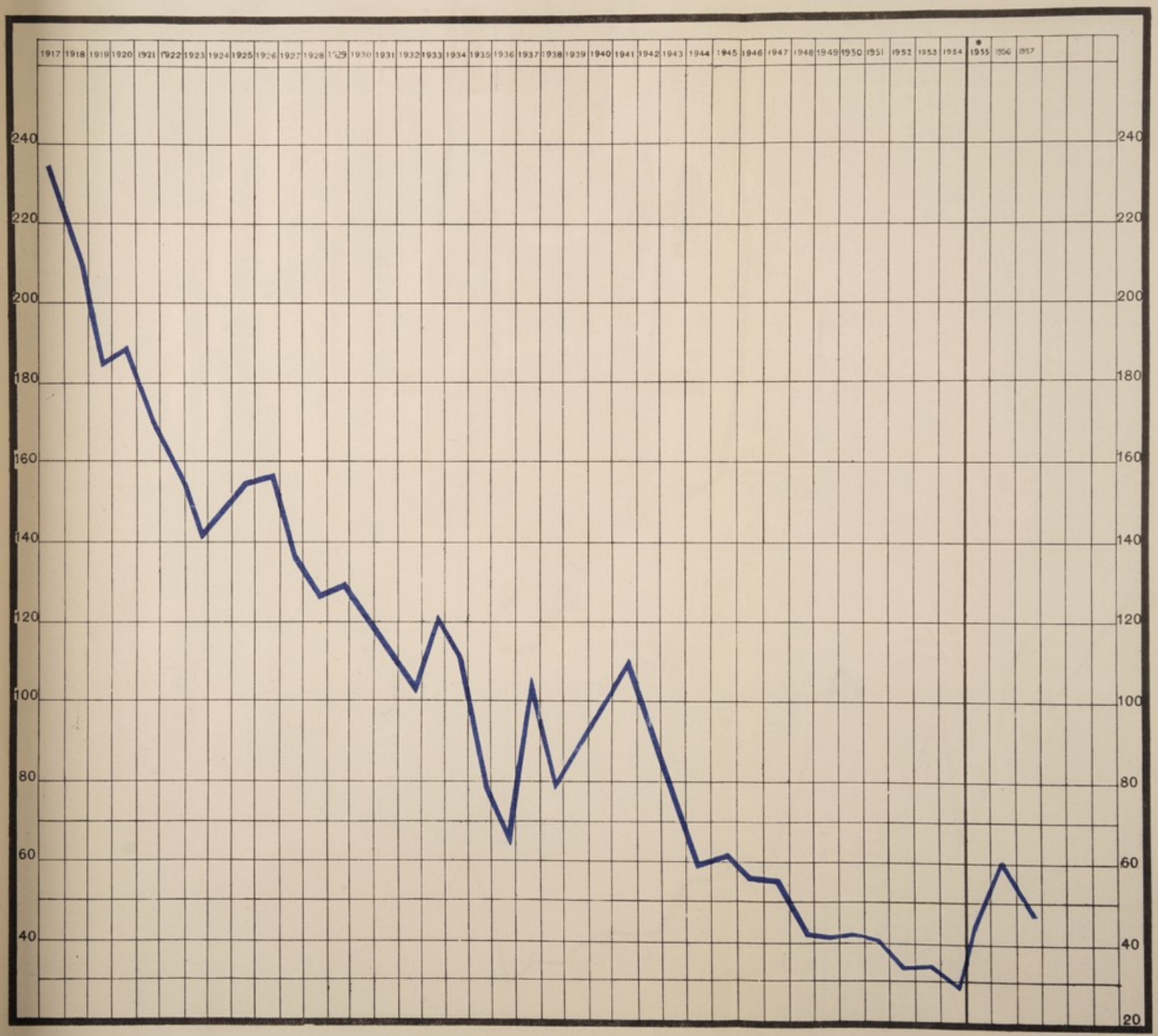
Infant Mortality

In a critical study of the vital statistics of any particular community it is a matter of imperative necessity that special consideration be given to the infant mortality rate. In fact it has long been recognised that this rate is a very sensitive index of progress in any community for it reflects a number of factors that make for the health and welfare of that community. In addition it is a rate that it is fairly easy to arrive at depending as it does on figures that are not difficult to assess and are readily available.

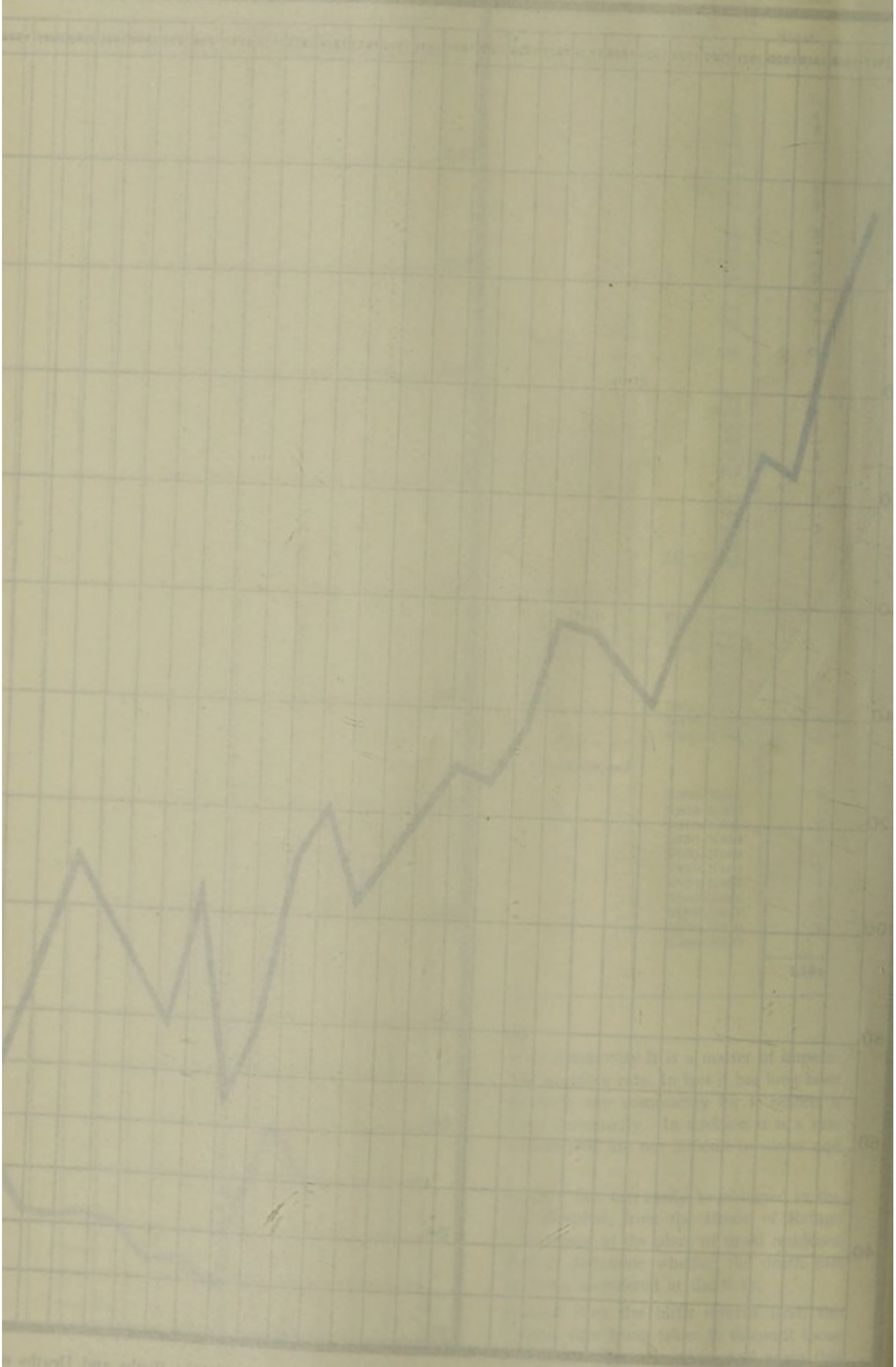
The number of deaths of infants under one year is a figure that can easily be obtained in the death returns from the District Registrars, from the General Hospital, from the House of Refuge and other Institutions, and provided the returns show the addresses of the place of usual residence of the parents of the deceased it will not be a difficult matter to determine whether the death can properly be said to belong to the particular place which is being considered at the time.

Similarly, the number of live births can also be gleaned from the birth returns from the District Registrars, the General Hospital and other Institutions, care being taken to discount those births that do not really belong to the locality where the birth actually took place. And again this is done by analysing the data supplied in the returns in so far as they relate to the place of usual residence of the parents. If the parents have not resided for the six-month period antecedent to the birth of the infant in the same place where the birth has actually taken place, that birth is not counted as a birth belonging to the locality under consideration.

CHART D
Port-of-Spain
Infant Mortality Rates per 100,000 Live Births 1917-1957



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



With those figures at hand the infant mortality is the ratio of the number of deaths of infants under one year that have occurred in the particular locality to a thousand live births occurring in that selfsame locality.

A low infant mortality rate connotes sufficient ante-natal care, prompt and skilled intra-natal services, and adequate post-natal supervision, care and control in the first place, but it reflects good health and good education on the part of both parents, good and adequate housing accommodation, sufficient earning capacity to provide the basic essentials of decent living, generous and readily available social welfare services, and a high standard of environmental hygiene in the second place.

It seems clear, therefore, if the infant mortality rate is to be reduced, efforts must be directed in a variety of channels and that no steady concentration on one set of factors only will achieve the desired result.

In fact the infant mortality rate and the general improvement of the public health are closely related and march hand in hand with each other.

The infant mortality rate for the year 1957 worked out to be 46.48, which can be considered a not unsatisfactory rate but which is higher than that recorded nowadays from countries in temperate climes and from more progressive and more wealthy centres in tropical climes.

There is need for more effort generally and specifically if this rate is to be further reduced.

The Child Welfare League and the Central Government who are mainly responsible for this most important piece of public health work must see to it that services that are more adequate and more able to meet the needs of all expectant mothers and all infants and children are provided.

It is true to state that less than one half of all expectant mothers, and not more than half the number of infants born receive adequate ante-natal and post-natal care; that not more than one half of those needing these services resort to them, through lack of knowledge of their existence and the benefits that they can bring to mother and child, often because of the need of the necessary wherewithal with which to go to the clinics and avail themselves of the skilled care and attention which are there provided, and because also of the lack of the guiding and teaching influence of hea'th visitors who are not yet sufficient in numbers to make it possible for every home with expectant mothers or new born infants to be paid the regular visits they deserve.

These are the lines along which the work of maternity and child welfare is in urgent need of expansion, but the funds necessary for the purpose must be provided and the constant cutting and contriving, pruning and scraping to provide some kind of service that is now the order of the day must come to an end.

This branch of public health work is too important and is fraught with too much potentiality for the benefit and welfare of the nation to be left half done as it is at the moment. At the same time the part to be played by local authorities in raising the standard of general education in a wider and more effective dissemination of health education to parents, in expanding the welfare services, in providing adequate housing accommodation, and in raising the standard of environmental hygiene is clear and must not be underestimated.

Births and Deaths of Infants under 1 year, 1917-57

Period	No. of Births	No. of Deaths under 1 year	Infant Mortality Rate
Year 1917	1,770	412	232.77
Yearly Averages:			
1918–22	1,700	310	182.94
1923–27	1,862	274	146.96
1928–32	1,925	230	119.13
1933–37	2,248	215	96.05
1938–42	2,913	275	93.84
1943–47	4,026	248	61.94
Average 1918–47	2,446	259	116.94
1948	4,053	177	43.67
1949	4,037	171	42.36
1950	3,905	168	43.02
1951	3,982	167	41.94
1952	4,115	137	33.29
1953	4,499	157	34.90
1954	5,403	150	27.76
1955	3,078	138	44.83
1956	2,621	158	60.28
1957	2,735	127	46.44

Causes of Deaths under 1 year, 1957

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	40	2	42	
Marasmus	—	—	—	
Malnutrition	—	6	6	
Congenital Abnormalities	1	1	2	
Congenital Debility	1	—	1	
Congenital Heart Disease	—	4	4	
Anaemia	—	—	—	
Toxic Liver Disease	—	—	—	
Total Ante-Natal	42	13	55	43.31
Intra-Natal Causes:				
Haemorrhage	—	—	—	
Bleeding Cord	—	—	—	
Respiratory Obstruction (Cesarean)	—	—	—	
Total Intra-Natal	—	—	—	—
Post-Natal Causes:				
Asphyxia and Atelectasis	9	—	9	
Pneumonia	3	6	9	
Diarrhoea and Enteritis	3	23	26	
Bronchitis	—	8	8	
Icterus Neonatorum	2	—	2	
Pleurisy	—	—	—	
Tuberculosis	—	—	—	
Pulmonary Congestion	—	—	—	
Other Post-Natal Causes	11	7	18	
Total Post-Natal	28	44	72	56.69
Grand Total	70	57	*127	

*M. 74; F. 53.

Duration of Life of Infants dying under 1 year of Age, 1957

Duration of Life	No. of Infants	Percentage of Total Deaths under 1 year	Corresponding Percentage, 1956
Under 1 day	9	7.09	4.43
1 day and under 2 weeks	57	44.88	30.38
2 weeks and under 1 month	4	3.15	7.60
Total under 1 month	70	55.12	42.41
1 month to 3 months	17	13.39	17.09
Over 3 to 5 months	11	8.66	13.29
Over 5 to 7 months	16	12.60	13.92
Over 7 to 9 months	6	4.72	5.70
Over 9 to 11 months	7	5.51	6.96
Over 11 months and under 1 year	—	—	.63
Total	127	—	—

Neo-Natal Mortality (Deaths under 1 month), 1930-1957

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
1954	84	56.00	15.55
1955	82	59.42	26.64
1956	67	42.41	25.56
1957	70	55.12	25.59

Still Births

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

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

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

The conditions that cause the death of the infant in the mother's womb may operate during the ante-natal period as well as during the intra-natal period; of these the chronic systemic diseases like tuberculosis, chronic nephritis, diabetes, chronic heart disease and alcoholism are the most important and operate predominantly during the ante-natal period on the one hand; and the diseases, accidents and abnormalities of pregnancy play the predominant rôle in the intra-natal period on the other hand.

It follows therefore that further efforts to diminish the still birth rate must be concentrated on the elimination and cure of these chronic systemic diseases during the ante-natal period and on prompt, skilled and readily available intra-natal care during the intra-natal period.

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

During the year under report 78 still births were registered in the returns that reached the Department, which gives a still birth rate of 28.52 per 1,000 live births.

Still Births, 1957

Year	Total Still Births	Rate per 1,000 Live Births
1957	78	28.52
1956	67	25.56
1955	89	28.92
1954	268	49.60
1953	225	50.01
1952	207	50.30
1951	193	48.47
1950	165	42.25
1949	244	60.44
1948	223	55.02
1947	220	53.49
1946	225	54.44
1945	224	56.39
1944	265	63.69
1943	230	61.32
1942	257	75.61
1941	211	73.06
1940	214	72.86
1939	190	69.04
1938	171	66.00

Maternal Mortality

A death that is a direct result of pregnancy and/or childbirth is a tragedy that should be prevented seeing that pregnancy and childbirth are physiological processes and a healthy mother should without difficulty give birth to a normal infant without any mishap whatsoever under normal circumstances. If there is any abnormality either on the part of mother or child, this should be corrected by proper and efficient ante-natal care and steps taken to see that the mother at least is saved from serious injury or death.

Four mothers succumbed during pregnancy and/or childbirth in the year under report; of these one death was due ot haemorrhage, one to obstetric shock, one to ectopic gestation, and one to ruptured uterus.

This is the smallest number of maternal deaths that have been registered during the past twenty years and it is sincerely to be hoped that this small number represents the beginning of a downward trend which will result eventually in the figure 0 being recorded.

Causes of Maternal Deaths, 1957

Causes of Maternal Deaths	Under 16	16 to 25	26 to 35	36 and upwards	Total All Ages	Rate per 1,000 Births	
						1957	Average 1952–56
Puerperal Sepsis	—	—	—	—	—	—	.04
Eclampsia	—	—	—	—	—	—	.24
Haemorrhage	—	—	1	—	1	.36	.58
Pernicious Vomiting	—	—	—	—	—	—	.08
*Other Causes	—	2	1	—	3	1.10	2.24
TOTAL	—	2	1	—	4	1.46	3.18

*Other Causes include Obstetric Shock, Ectopic Gestation, Ruptured Uterus.

The Pre-School Child

I have in many annual reports referred to the great need that exists for a continuous period of supervision of the child starting with the infant in the post-natal period extending through the pre-school period and eventually to the school period until the time for school leaving arrives.

It does seem that a lot is lost by providing care, supervision, and control during the first year of extra-uterine life and during the school period only, leaving the child during the pre-school period to fend for itself so to speak, and it is not surprising to find at the first medical examination after entering school that the child is saddled with a number of diseases and defects and even deformities which could either have been cured with adequate treatment or prevented altogether if the pre-school child had been subjected to medical care and control before entering school.

In this sense it would appear that the time, energy, and money spent during the first year of life had been completely dissipated.

There is here an urgent need for more health visitors and voluntary workers whose duty it would be to visit the homes of these children and provide them with the care, attention and advice that they need to prevent them from falling a prey to diseases and injuries that can have such a crippling effect on their future lives.

More crèches and day nurseries should be provided where these children could be brought under medical care and control, where skimmed dried milk supplied by Government and the United Nations International Emergency Organisation could be made available to them and be more widely distributed, where they could be given additional nutrition if found necessary and where they can be left to the care, supervision and control of trained nurses whilst their parents are away at work.

Causes of Death at Ages 1-5, 1957

GROUPS	Group Total	Percentage of Total Mortality at Ages 1–5
Diseases, &c., attributable to Ante-Natal Causes:		
Microcephaly, 1	1	2.86
Communicable Diseases:		
Pneumonia, 10; Diphtheria, 1	11	31.43
Diseases of the Nervous System:		
Encephalitis, 2; Brain Haemorrhage, 1	3	8.57
Diseases of the Circulatory System:		
Cardiac Failure, 1	1	2.86
Diseases of the Respiratory System:		
Bronchitis, 6; Pulmonary Congestion, 1; Atelectasis, 1	8	22.85
Diseases of the Digestive System:		
Gastro-Enteritis, 3; Bacillary Dysentery, 1	4	11.43
Other Causes:		
Nutritional Anaemia, 1; Malnutrition, 1; Burns, 1; Carcinoma, 1; Diseases due to Helminths, 1; Fracture of Skull, 1; Foreign Body in Trachea, 1	7	20.00
	*35	—

*M—23 : F—12.

PREVALENCE OF AND CONTROL OVER INFECTIOUS DISEASES

Notifiable Infectious Diseases

Infectious diseases can truly be said to be the pivot around which the entire work of a Public Health Department revolves and it was mainly due to the ravages wrought in the past by large epidemics of infectious disease that the public conscience was stirred as to the urgent necessity for the prevention and control of these diseases and to the need for properly organised departments to undertake the detection of infectious diseases and to institute measures for their prevention altogether or for the limitation of their spread.

It is therefore a matter of great importance that Public Health Departments be properly organised to detect infectious diseases and to deal with an outbreak at the earliest possible opportunity and every means must be adopted to check the incidence of these diseases and eventually to prohibit their occurrence altogether.

The infectious diseases that are notifiable and to which therefore section 103 of Part XIV of the Public Health Ordinance, Ch. 12. No. 4 applies are now 21 in number, the latest addition to the list being malaria which was declared a notifiable infectious disease in March, 1956. They are : 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, puerperal fever and malaria, in addition to plague, cholera, yellow fever, small pox (including alastrim), typhus fever, typhoid fever and anthrax which are dangerous infectious diseases and in regard to which the whole process of quarantine is applicable. Typhoid fever and anthrax were proclaimed dangerous infectious diseases in 1937 and 1938 respectively. (*Royal Gazette* 30th July, 1937 and 2nd June, 1938.)

The notification of these notifiable infectious diseases to the Medical Officer of Health of the area is a statutory duty imposed by Section 104 of the Public Health Ordinance and this notification is the responsibility in the main of the practitioner who has first seen the case or is actually attending the case, and as soon as a reasonable suspicion of one of the notifiable infectious diseases is raised the practitioner must notify; on no account must he wait for hospital or laboratory confirmation of his diagnosis, for delay in such circumstances may be fraught with considerable danger. Again the practitioner must resort to the most expeditious method of notifying the disease to the Public Health Department and more use should be made of the telephone, or the notification should be delivered by messenger.

The purpose underlying the compulsory notification of these diseases at the earliest possible opportunity is to enable the public health authorities to undertake at the earliest possible moment the whole train of preventive measures : the effective isolation of the case, the detection of contacts, the disinfection of premises and fomites, and the active or passive immunization of the susceptible, which has been developed to deal with these cases and which has stood the test of time as to their efficiency and their practicability in limiting or preventing outbreaks.

It is gratifying to be able to record that the general practitioners is fully alive to his statutory obligation in this regard and notifications do reach the Public Health Department early. Exceptions there are, of course, and a practitioner has on occasions to be reminded that he has failed to notify promptly such and such a case of infectious disease, but those are the exceptions that prove the rule.

Whenever possible it is preferable that the case be referred to hospital for admission and unless the infectious disease Ward of the Hospital is already full these cases are usually admitted except perhaps in the case of chicken pox, but here again the bad case of chicken pox, especially if some confusion with small pox is likely to arise, can always gain admission to hospital if the Medical Superintendent is consulted. Effective isolation is, of course, easier of attainment in the infectious disease ward of a hospital and there is in addition the great advantage that an initial error in diagnosis, which is sometimes inevitable seeing that the practitioner is acting largely on suspicion, can eventually be corrected, seeing that time and the facilities of hospital and laboratory investigation are on the side of the hospital doctor.

The hospital doctor, if he knows that the case has already been notified by the general practitioner, can afford to wait and be sure of the diagnosis before he again notifies the Public Health Department as he is in duty bound to do, and so a correct diagnosis can be established which is so essential to the compiling of accurate and reliable statistics.

The year 1957 yielded a total of 269 notifications of infectious diseases of which 110 were cases of chicken pox, 73 pulmonary tuberculosis, 27 pneumonia, 16 ophthalmia neonatorum, and 13 acute anterior poliomyelitis (infantile paralysis). At the same time 97 deaths were certified: 83 to pneumonia, 13 to pulmonary tuberculosis and 1 to diphtheria. This is not an unsatisfactory state of affairs and

does not indicate any undue prevalence of infectious disease, but it does indicate that when once an infectious disease gets going in a crowded and congested area it can spread with the greatest rapidity, as is well illustrated by the cases of chicken pox whose main incidence, the returns show, is on the undernourished residents of low resistance in the East Dry River, Belmont and City Proper Sub-districts.

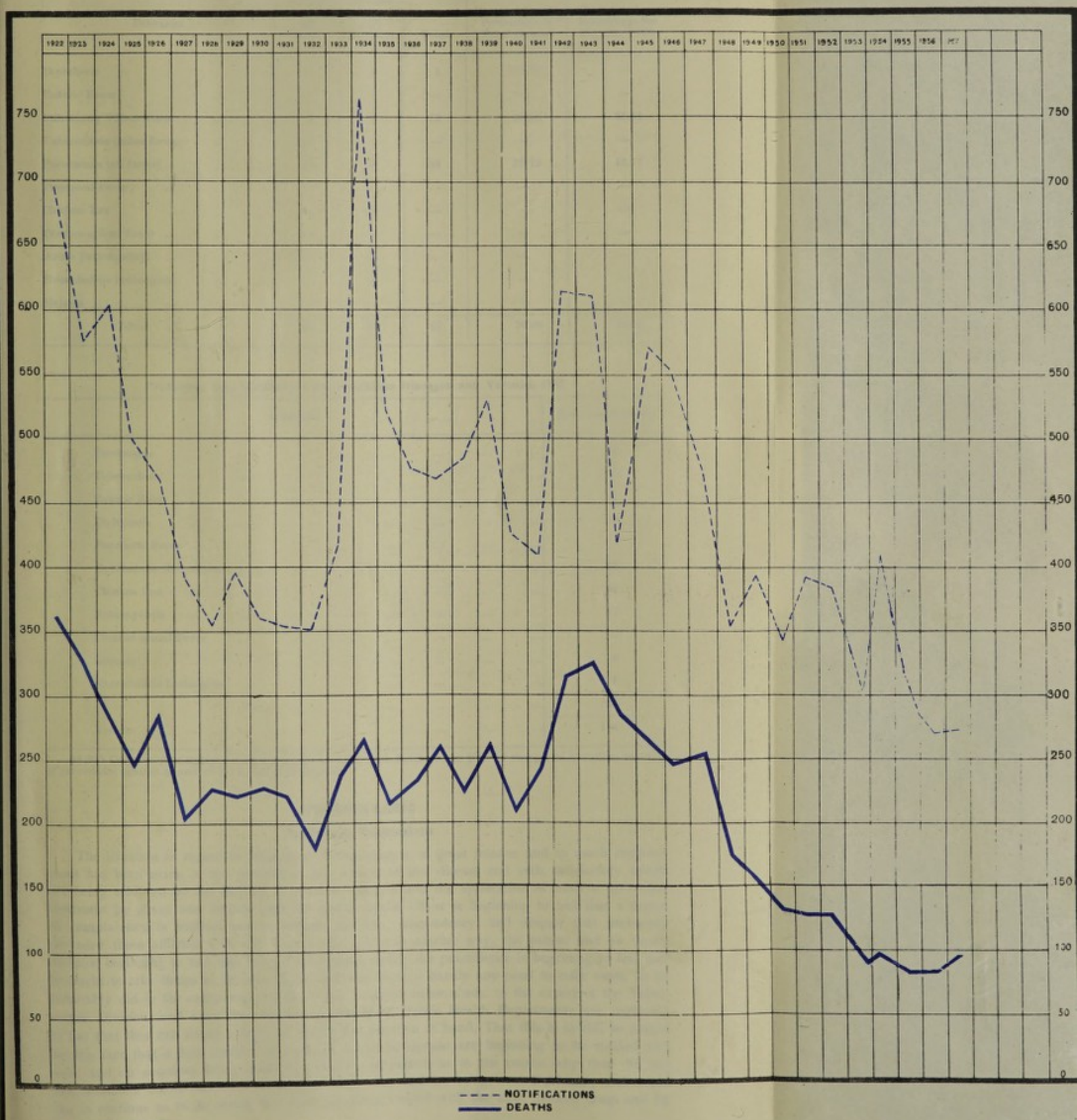
Infectious Diseases—Notifications and Deaths, 1947-1957

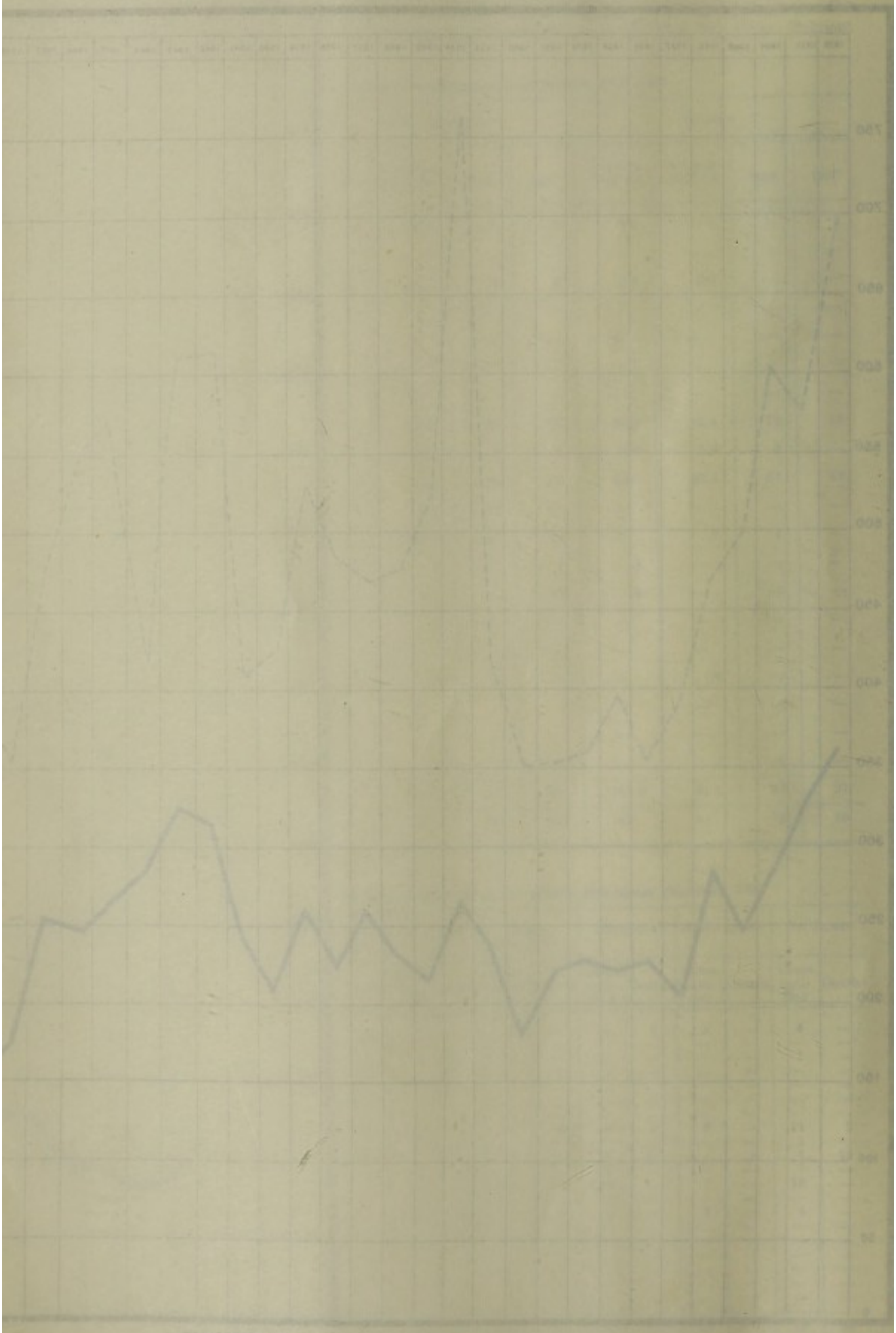
Infectious Diseases	Cases Notified				Deaths			
	Average 1947–51	Average 1952–56	1956	1957	Average 1947–51	Average 1952–56	1956	1957
Diphtheria	21.6	23.2	17	19	1.8	.8	—	1
Membranous Croup ...	—	.2	—	—	—	—	—	—
Typhoid or Enteric Fever ...	38.4	21.0	9	9	5.0	3.0	—	—
Plague	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—
Small Pox (Alastrim) ...	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	170.2	122.2	85	73	83.0	19.4	13	13
Tuberculosis (other forms) ...	7.4	3.8	3	1	9.6	5.6	3	—
Pneumonia	71.0	47.8	38	27	64.6	62.8	67	83
Ophthalmia Neonatorum ...	5.0	7.8	12	16	—	—	—	—
Chicken Pox	71.2	98.4	101	110	—	.2	1	—
Encephalitis Lethargica ...	—	.4	—	1	.4	—	—	—
Acute Poliomyelitis ...	1.6	8.0	—	13	.6	—	—	—
Cerebro-Spinal Fever ...	1.2	.2	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—
Puerperal Fever	1.2	.2	—	—	—	.8	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—
Malaria	—	.4	2	—	—	.2	1	—
Grand Total ...	388.8	333.6	267	269	165.0	92.8	85	97
Rate per 100,000 Population...	383	292	222	223	162	81	71	80

Distribution of Cases and Deaths from Notifiable Infectious Diseases, 1957

Diseases	City Proper		St. Clair		East Dry River		Belmont		Woodbrook		St. James	
	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths	Cases notified	Deaths
Diphtheria	2	—	—	—	3	—	8	1	2	—	4	—
Membranous Croup ...	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid or Enteric Fever ...	1	—	1	—	4	—	2	—	—	—	1	—
Plague	—	—	—	—	—	—	—	—	—	—	—	—
Cholera	—	—	—	—	—	—	—	—	—	—	—	—
Yellow Fever	—	—	—	—	—	—	—	—	—	—	—	—
Small Pox (Alastrim) ...	—	—	—	—	—	—	—	—	—	—	—	—
Pulmonary Tuberculosis ...	26	4	—	—	11	5	16	1	6	—	14	3
Tuberculosis (other forms) ...	—	—	—	—	—	—	—	—	—	—	1	—
Pneumonia (all forms) ...	8	17	—	2	7	11	11	15	—	6	1	32
Ophthalmia Neonatorum ...	3	—	—	—	8	—	3	—	—	—	2	—
Chicken Pox	30	—	1	—	38	—	18	—	7	—	16	—
Encephalitis Lethargica ...	—	—	—	—	—	—	1	—	—	—	—	—
Acute Poliomyelitis ...	3	—	—	—	1	—	4	—	1	—	4	—
Cerebro-spinal Fever ...	—	—	—	—	—	—	—	—	—	—	—	—
Typhus Fever	—	—	—	—	—	—	—	—	—	—	—	—
Acute Ascending Myelitis ...	—	—	—	—	—	—	—	—	—	—	—	—
Puerperal Fever	—	—	—	—	—	—	—	—	—	—	—	—
Anthrax	—	—	—	—	—	—	—	—	—	—	—	—
Malaria	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total ...	73	21	2	2	72	16	63	17	16	6	43	35
Rate per 100,000 Population in each Sub-District ...	176	51	99	99	269	60	302	81	105	39	303	247

CHART E
Port-of-Spain
Infectious Diseases—Notifications and Deaths 1922-1957





Notifiable Infectious Diseases—Home and Hospital Deaths, 1957

Diseases	Deaths			Hospital Deaths Percentage of Total Deaths	Corresponding Percentage for the year 1956
	At Home	At Hospital	Total		
Diphtheria	—	1	1	100.00	—
Enteric Fever	—	—	—	—	—
Pulmonary Tuberculosis	7	6	13	46.13	61.54
Tuberculosis (other forms)	—	—	—	—	—
Pneumonia (all forms)	55	28	83	33.73	46.77
Puerperal Fever	—	—	—	—	—
Chicken Pox	—	—	—	—	—
Cerebro-spinal Fever	—	—	—	—	—
Acute Poliomyelitis	—	—	—	—	—
Encephalitis Lethargica	—	—	—	—	—
Malaria	—	—	—	—	—
Total	62	35	97	36.08	48.23

Premises, &c., Disinfected for Infectious Diseases and Vermin, 1957

Diseases	Premises Sprayed
Pneumonia	23
Tuberculosis	61
Enteric Fever	11
Diphtheria	15
Puerperal Fever	—
Ophthalmia Neonatorum	16
Chicken Pox	88
Poliomyelitis	17
Cerebro spinal Fever	—
Leprosy	3
Encephalitis Lethargica	1
Total	235
Vermin	184

14,323 Cesspits were sprayed with a mixture of crude and distillate oils (free of charge) as a routine measure of prevention against spread of the bowel-filth diseases.

TUBERCULOSIS

Pulmonary Tuberculosis

The situation in regard to Pulmonary Tuberculosis is of great interest and so much improvement has been made in the prevention and control of this disease and such satisfactory results are being achieved by the method of effective isolation and the application of modern up-to-date treatment by drugs and surgery that the public health officer is beginning to feel that a degree of complacency is tending now to replace the fear, despondency, and despair that previously pervaded those afflicted with this disease. To put it in another way, the patient and his family are now beginning to feel that he can take things easily; the practitioner is beginning to feel that he ought to take things in his own hands and that there is hardly any need to refer cases, as he invariably did in the early stages of the "fight" against tuberculosis, to the expert of the Tuberculosis Division; and even the ancillary personnel of Public Health Departments are beginning to feel that they can let up a little, so well is the situation in hand. That this is so can be judged by the fact that a fair number of cases of advanced disease are beginning to be notified and seen, and on enquiries being made by Sanitary Inspectors as to the reason why they did not seek treatment before the usual story is that they were and are being treated privately and would like to continue so to do seeing that they are being treated with the most modern drugs and by the latest methods.

It is clear that persons such as these are beginning to feel that they need not resort at the earliest possible opportunity to medical diagnosis and treatment in view of the great efficiency of modern drugs and their certain cure when once they come under treatment, and by so thinking not only do they delude themselves but they represent a grave potential threat to the existing favourable situation as regards this disease because of the indiscriminate spread of infection before it is detected and brought under control.

And in these circumstances it is a matter of paramount importance for the general practitioner to realise that it is his statutory duty to notify the case as soon as he sees it, and, as I have stated before, even on the merest suspicion, and that notification does not necessarily mean that the patient would be removed from his care and treatment.

It is therefore important that all our efforts should be directed to dispelling this false idea and to continuing the struggle with the same determination and the same energy that has characterised the anti-tuberculosis campaign in the past.

It would be disastrous to rest on our oars at this juncture, and in the situation that now faces public health officers, it is impossible to underestimate the role of a well directed and widely disseminated health education campaign.

The immediate problems, however, that confront us at the moment are those connected with the rehabilitation of cured patients. This is the main pre-occupation of the Association for the prevention of Tuberculosis which has been engaged in this work ever since it was reorganised in 1946 and a proper division of functions as between the Health Department of Government and the Association decided upon. The work, however, does no more than touch the surface of the problem, and needs expansion; there is need for training in a variety of occupations suitable for the cured patient who should be and can be, made once more to take an active interest in the life of the community and to earn a livelihood in a manner that is conducive to his dignity and self-respect.

Plans are being actively pursued at the time I write to expand this aspect of the Association's work and proposals are being examined for the establishment of a rehabilitation centre on the grounds of the Caura Sanatorium to enable rehabilitation to commence at the earliest possible opportunity after treatment.

But for this more funds must be made available and at no time in the history of the Association is the need for more voluntary workers more urgent.

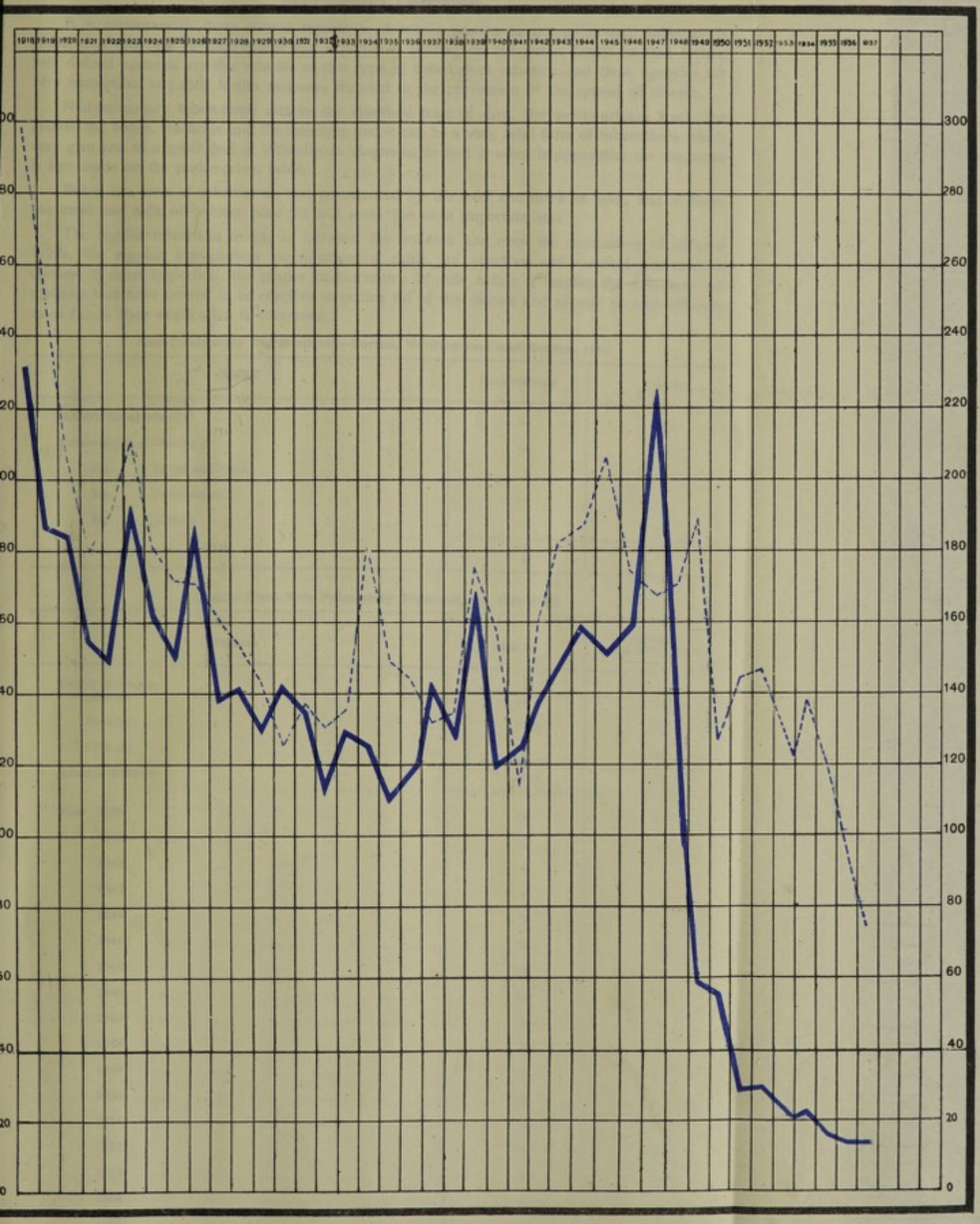
Pulmonary Tuberculosis—Notifications and Deaths, 1918-57

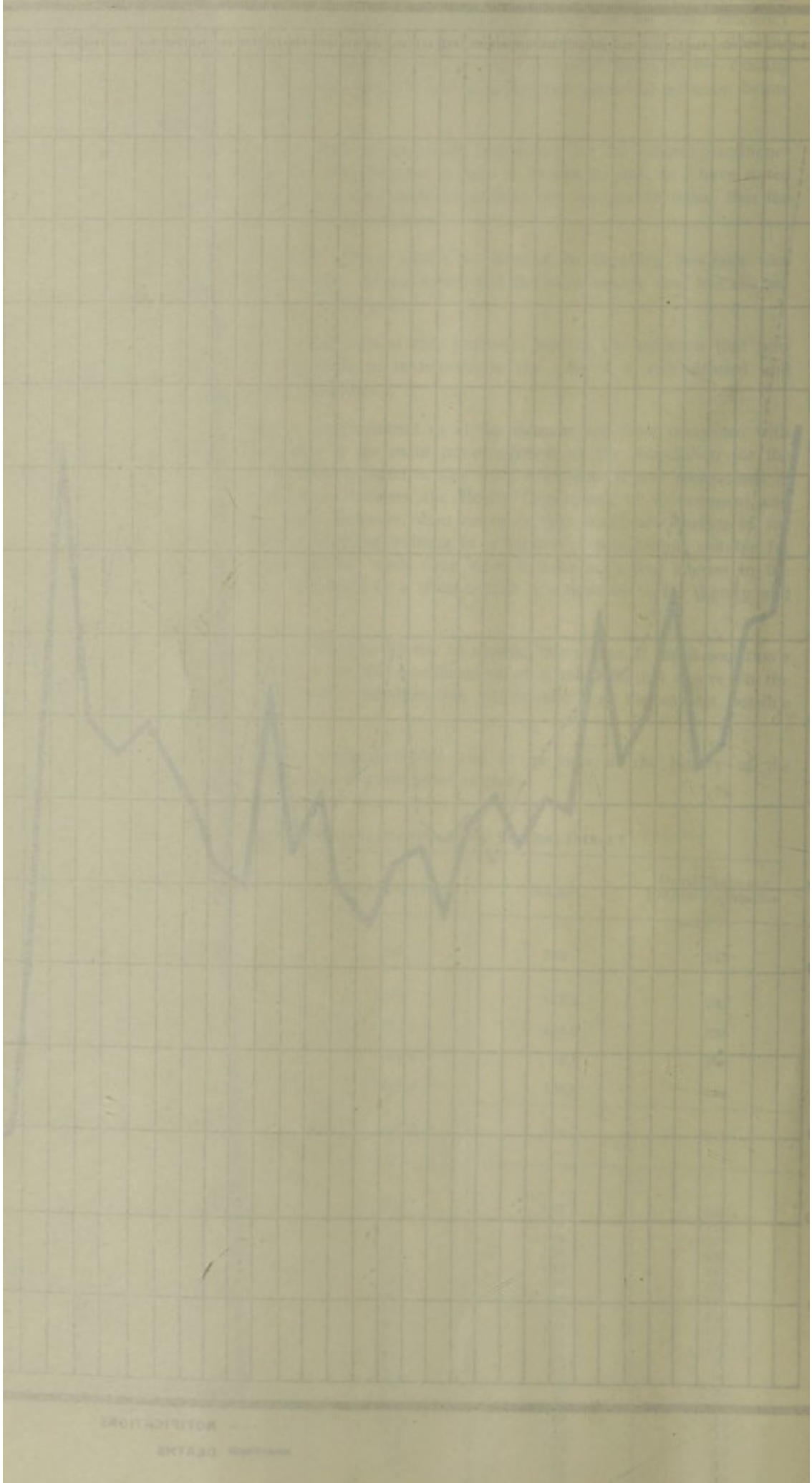
Period	Notifications	Deaths	Death Rate per 100,000 Population
Year 1918	299	233	343
Yearly Averages:			
1919–23	207	173.2	265
1924–28	167.6	154.6	238
1929–33	133.6	12.9	185
1934–38	147.4	124.6	162
Average 1919–38	163.9	145.4	213
Year 1939	175	167	185
1940	155	118	128
1941	113	124	127
1942	157	136	137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

CHART F

Port-of-Spain

Pulmonary Tuberculosis—Notifications and Deaths 1918-1957





Non-Pulmonary Tuberculosis

It is customary in these annual reports to devote a section to non-pulmonary tuberculosis seeing that this type of tuberculosis has a profound bearing on the public health in that certain well defined agencies are the vehicles of this type of tuberculous infection and these agencies are very susceptible to public health measures directed to the prevention of the spread of disease.

Non-pulmonary tuberculosis attacks the intestinal tract of man, the genito-urinary tract, the glands, the bones, the brain and the meninges and it can be a very fatal form of tuberculosis which may give rise to a good deal of difficulty in diagnosis; in fact it often happens that the diagnosis is first made on the post-mortem table.

But it is a form of tuberculosis that is conveyed by the food and drink of man, and of these the meat and milk of bovines play far and away the most important rôle.

The regular tuberculin testing of bovines, the isolation and even the destruction of affected herds, the regular ante-mortem examination of cattle, an effective and detailed post-mortem method of meat inspection, the proper pasteurization of milk before it reaches the consumer are methods that have proved to be effective in getting rid of this disease and present no real difficulty in so far as their application is concerned.

Non-Pulmonary Tuberculosis—Forms, Notifications and Deaths, 1957

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

Deaths from Non-Pulmonary Tuberculosis, 1924-1957

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

ENTERIC FEVER

Just as the incidence of pulmonary tuberculosis is usually held to be a very sensitive index of the state of congestion and overcrowding of a sanitary district and of the general poverty and malnutrition of its residents so does typhoid or enteric fever indicate in a very special way the efficiency of disposal of sewage and the general resistance to infectious disease of the residents of the area. For it is an undoubted fact that if the infected faecal matter of a person suffering from this disease is promptly and effectively disinfected and disposed of, and if no ready means exist whereby it can again gain entry to the body of a healthy individual and reproduce the disease, enteric or typhoid fever must inevitably come to an end.

The aim of all modern methods of sanitation and of the water-borne method of sewage disposal particularly is to lower the incidence of the bowel filth diseases of which typhoid fever is perhaps the most important, and eventually to eliminate them altogether.

The water-borne sewerage system insures the speedy removal of faecal matter and particularly infected faecal matter from inhabited premises and its ultimate disposal in a place where it can exert no harmful effect.

It is obvious, therefore, that any system of conservancy which permits faecal matter to be retained in and about premises carries with it a grave potential risk that the faecal matter, if by chance it happens to be infected, may cause the spread of typhoid fever, dysentery, and other bowel filth diseases.

In the City of Port-of-Spain where less than one-half of the Urban Sanitary District is sewered, there still remains the privy cesspit system of disposal with a certain number of premises being 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 risk of the spread of typhoid fever is a real one, a risk that is ever present but very considerably diminished by the constant oiling and disinfecting of those areas, which is an important part of the regular routine work of the Department but which is intensified whenever a case of typhoid fever occurs in the district. In these circumstances oiling of all privy cesspits within a circle a mile wide is undertaken in addition to measures of disinfection applied to the premises themselves where the case occurred and to the particular pit where it is almost certain that infected faecal matter has been deposited. It is true that by these and other measures including the active immunization of contacts, the incidence of typhoid fever has been kept down and fewer and fewer cases are occurring each year, but if typhoid fever is to be completely eliminated from the Urban Sanitary District the whole of the City will have to be sewered and a sufficiency of water supplied for the immediate flushing of lavatories and the prompt removal of all contaminated matter from the affected premises.

Typhoid fever within the limits of the City is almost certainly not water-borne, the water supply being made and kept potable by the chlorination of all sources and by the maintenance of a residual in the distribution system to make sure that any possible contamination occurring in the latter system can be dealt with immediately.

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

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

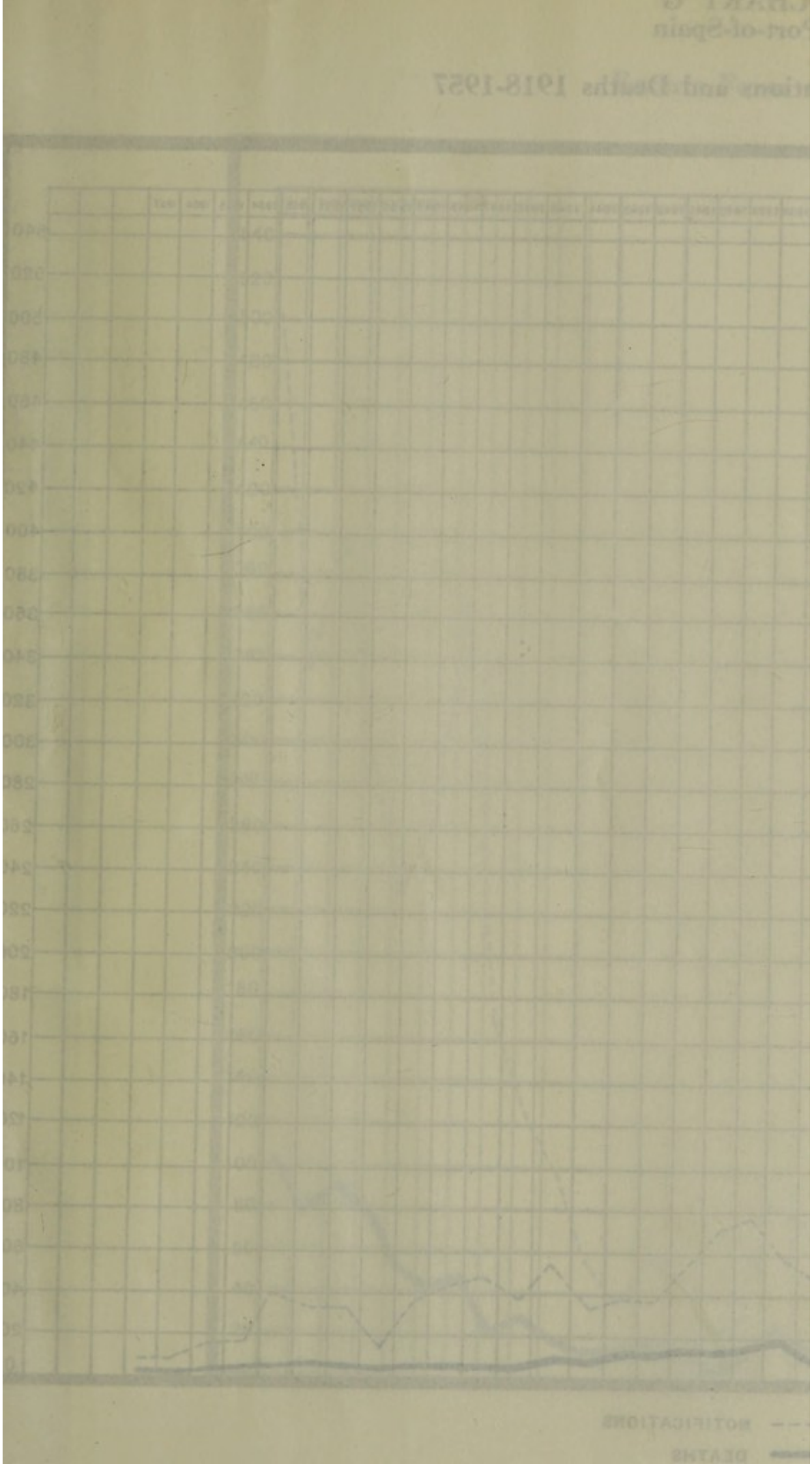
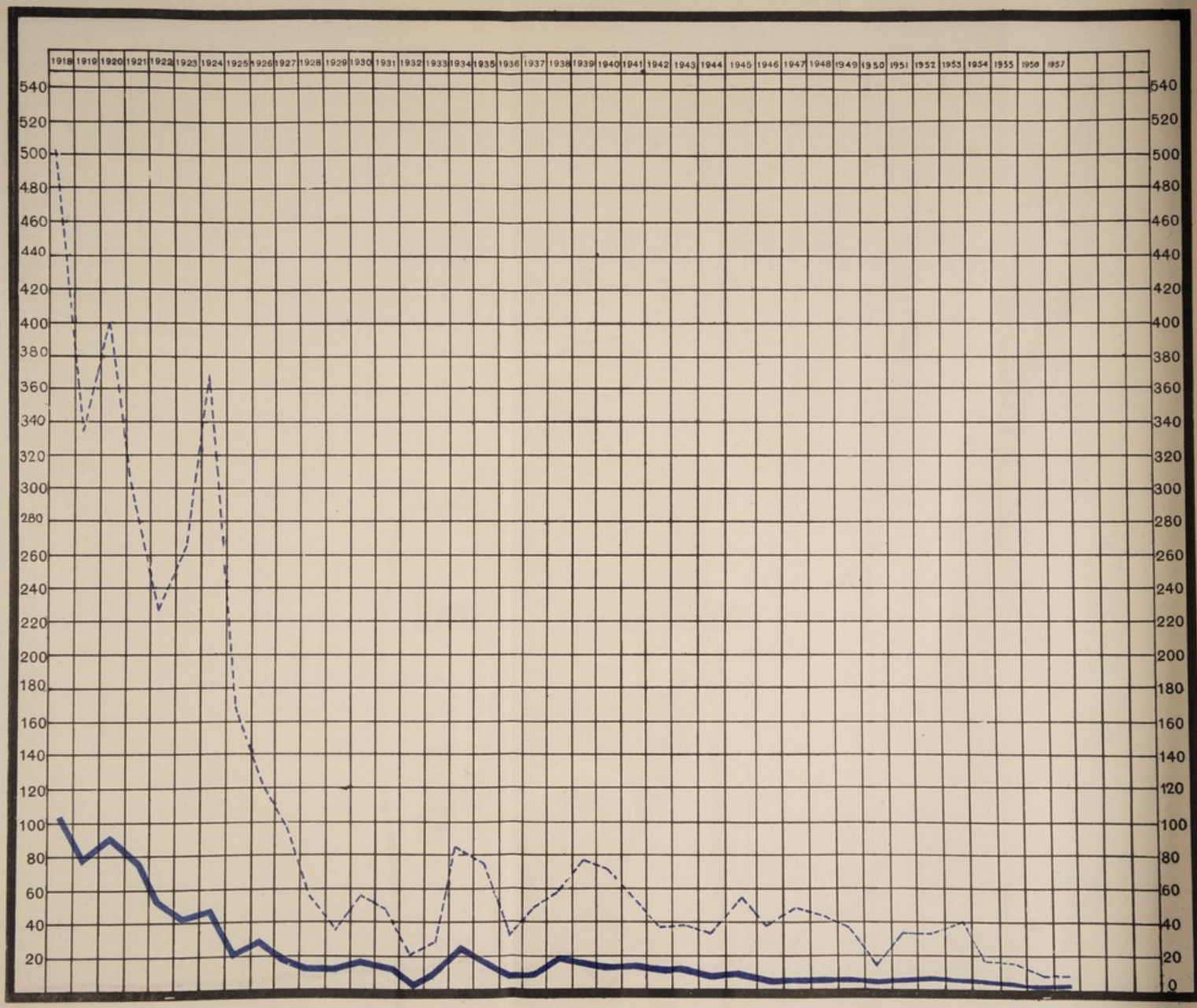


CHART G
Port-of-Spain

Enteric Fever—Notifications and Deaths 1918-1957



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

ENTERIC FEVER

Notifications and Deaths, 1918-1957

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

Inoculation of Enteric Fever Contacts, 1957

T.A.B. Injections

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

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

PNEUMONIA

Pneumonia is a notifiable infectious disease that is responsible for a high mortality in the Urban Sanitary District. In fact, of all the diseases of the respiratory system, pneumonia is nowadays claiming the largest number of deaths and has completely displaced pulmonary tuberculosis from the position at the head of the list which it previously occupied, deaths certified to pneumonia in 1957 being more than six times the number certified to pulmonary tuberculosis.

Pneumonia, therefore, is now posing a problem which cannot be neglected and to which we must devote the greatest attention if the mortality attributable to this disease is to be reduced.

Apart from being an infectious disease that can spread with great rapidity if preventive measures, viz. the effective isolation of the patient and the immediate disinfection of germ-laden sputum, are not applied promptly, pneumonia can give rise and often does give rise to a variety of complications of which pulmonary tuberculosis, heart disease, lung abscess, empyema, brain abscess and anaemia are the commonest and is a frequent cause of death especially when it occurs, as it is wont to occur, as the terminal complication of some general systemic disease which may have caused the patient to be bed-ridden for some time. It is not, however, a disease that strikes such terror in the heart of the patient or his relatives as pulmonary tuberculosis does, and this is due

almost entirely to the fact that the course of the disease has been so altered since the introduction of the sulpha drugs, penicillin, and other antibiotics that a patient suffering from either broncho-pneumonia or lobar pneumonia stands a much improved chance of complete recovery in a short space of time unless the disease occurs as the final terminal event in a long drawn out illness due to some general systemic disease.

Prior to the introduction of the newer drugs the mortality from pneumonia was somewhere in the vicinity of 30-40 per cent. today the mortality is nearer 5 to 10 per cent.

Pneumonia is a disease that is not notified with the frequency and the despatch that duty imposes and practitioners have constantly to be reminded that pneumonia (both forms) is a notifiable infectious disease and that it is their statutory duty to notify each and every case of pneumonia to enable public health preventive measures to be undertaken. It is of course because practitioners are not fully convinced of the efficacy or even the necessity of preventive measures in these cases that the disease is so inadequately notified particularly when they bear in mind the possibility of the removal of the patient to hospital when cases can be treated so quickly and efficiently at home.

Removal of the case to hospital may not be necessary in the well ventilated and large rooms of dwellings in the St. Clair, Woodbrook or St. James Sub-districts, but in the congested and over-crowded areas of the eastern and northern suburbs of East Dry River and Belmont where the residents are generally poor and mal-nourished, where houses are dirty, badly kept and dilapidated, and where environmental hygiene is of a lower standard or perhaps altogether lacking, removal of cases in these circumstances to hospital may make all the difference between death or survival, between complete recovery or a complicated and drawn out convalescence.

During the year under report only 27 notifications of this disease were received at the Public Health Department, but 83 deaths were certified. In fact during the past six years notifications have steadily diminished and death returns have consistently increased, which is a state of affairs in regard to which no public health officers can afford to be complacent.

PNEUMONIA—(All Forms)
Notifications and Deaths, 1922-57

Period	Notifications	Deaths	Death Rate per 100,000 Population
Yearly Averages:			
1922–26	111.8	78	123
1927–31	69.8	53.4	79
1932–36	155.4	80.6	110
Average 1922–36	112.3	70.7	104
Year 1937	125	85	110
1938	101	70	83
1939	107	59	65
1940	69	63	68
1941	138	88	90
Average 1937–41	108	73	83
Year 1942	332	152	153
1943	251	149	146
1944	109	97	93
1945	118	79	74
1946	87	61	61
1947	75	64	67
1948	62	51	52
1949	73	74	73
1950	64	54	52
1951	81	80	75
1952	68	72	66
1953	46	52	47
1954	48	58	51
1955	39	65	56
1956	38	67	56
1957	27	83	69

DIPHTHERIA

Diphtheria is an infectious disease that can effectively be diminished and perhaps eliminated altogether if the public health conscience of the community is sufficiently aroused as to demand of public health authorities a campaign of active immunization of pre-school and school children.

But because deaths are few and far between and because the cases that occur are comparatively mild, sufficient attention is not given to this disease and it is permitted to pursue its steady relentless course.

It cannot be stated with any degree of truth that cases are occurring in the Urban Sanitary District in large numbers but certainly they show no signs of diminishing in number and every year yields the customary crop of cases.

Whenever a case is notified to the Department contacts of the case are rounded up in the course of investigation of the case and disinfection of the premises and they are directed to report to the Public Health Department for active immunization with prophylactic toxin, two doses of APT being given to children and three doses of TAF to adults at intervals of one month in each case. This practice which has gone on for years now has had some effect in stemming the tide of infection but it only succeeds in scratching the surface of the problem and much more in the way of a properly organised campaign in schools or clinics is needed.

It is a matter of great importance that the possibility of diphtheria be always borne in mind in cases of sore throat, that the throat be always inspected in cases of fever and if the least suspicion is aroused a swab taken, that cases of diphtheria be notified to the medical officer of health at the earliest possible opportunity, that they be effectively isolated, preferably, of course, in hospital and that treatment be begun with anti-toxic serum immediately after the swab is taken and always before the result of the examination is received from the laboratory.

During the year under report 19 cases of diphtheria were notified to the Department and one death was registered.

DIPHTHERIA

Notifications and Deaths, 1917-57

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

CHICKEN POX

For the past four years chicken pox has been unduly prevalent in the Urban Sanitary District and over a hundred cases have been notified during the course of each of those years.

This is a notifiable disease of high infectivity and can and does spread with great rapidity in overcrowded dwellings in congested areas, which is another way of saying that far and away the largest number of cases occur in the East Dry River and Belmont areas. It is not a "killing" disease and no death return with chicken pox as the primary cause has ever been received at the Public Health Department of the City since it was established in 1917. Chicken pox can, of course, cause death but the usual method is by way of complications which it can and does give rise to, especially the fatal encephalo-myelitis and broncho-pneumonia, and pulmonary tuberculosis in debilitated subjects.

But it is imperative that chicken pox be notified seeing that in the mind of the layman there is no difference between chicken pox and small pox; they are all called "pox" and they can be a cause of anxiety and alarm and it is not uncommon for a severe case of chicken pox to simulate very closely a case of mild small pox.

If chicken pox is mistaken for small pox not much harm is likely to result but if small pox is mistaken for chicken pox a tragedy of ample proportions can occur, seeing that it is likely that this error in diagnosis will be discovered only when a crop of secondary cases is beginning to make its appearance.

This is the *raison d'etre* for the notification of these cases and that is why medical officers of health make it their business to see every case of chicken pox to satisfy themselves that it is chicken pox they are dealing with and not small pox. Errors of this kind can occur and it is not impossible for medical practitioners who have not had the benefit of much experience in these diseases to make such errors.

Removal to hospital may be necessary when a dwelling is full of children and the rooms are overcrowded such as usually happens in some parts of the East Dry River Sub-district and nearly always when a case occurs in an hotel or boarding house. In such cases it is possible for the Medical Officer of Health to make the necessary arrangements with the Medical Superintendent of the Hospital.

CHICKEN POX

Notifications, 1924-57

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

ACUTE ANTERIOR POLIOMYELITIS

Whereas no case of this alarming and crippling infectious disease had occurred in the year 1956, in the year under report 13 cases of acute anterior poliomyelitis were notified with fortunately no death. This compares not unfavourably with the 35 cases that occurred in the City in 1954 which was in the nature of a small epidemic that affected the Colony generally and to investigate which an expert from the Ministry of Health, Dr. Melville Mackenzie, was sent to Trinidad at the request of the Government of the day. His report on this outbreak was issued in the form of a brochure by the Ministry of Health and Social Services as the Ministry was then called. Inoculation with Salk Vaccine was given the contacts, but the then available supply of vaccine was insufficient to administer the full course recommended.

ACUTE ANTERIOR POLIOMYELITIS

Notifications and Deaths, 1927-57

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

MALARIA

Malaria, which is now a notifiable infectious disease, cannot be said to be a problem of public health importance in the Urban Sanitary District of the City of Port-of-Spain. Every survey undertaken with a view to detecting the possibility of acquiring malaria within the limits of the City—and there have been two such during the past twenty years—has proved quite definitely that the breeding of anophelenes is infinitesimal, only a few larvae and on rare occasions, adult mosquitoes being met with, and, then only in the extreme eastern, southern and western limits of the City where these areas are in contact with adjoining areas outside the City which were at one time highly malarious. Thanks, however, to the splendid efforts of the Malaria Division of the Health Department of Government these adjoining areas are being progressively freed from malaria and the danger of the disease gaining a foothold in the City remains as remote as it ever was.

In spite of this the work of anopheles control must go on and the anopheles and culex sections of the Anti-Mosquito Unit of the Public Health Department have always to be on the alert if the position that has been won after so many years of consistent effort directed specifically to the eradication of possible anopheles breeding grounds is to be maintained. That this must be so stems from a consideration of the fact that cases of acute malaria do undergo treatment in the wards of the General Hospital, Port-of-Spain, from time to time, and if the anopheles density were to attain any significant degree, widespread infection with the malaria parasite is a distinct possibility and an outbreak of malaria an imminent danger.

Reference must again be made here to the Cocorite Swamp and the area immediately adjoining. Fifteen years ago I stated in the report for 1943:—

> "Already joint efforts by Government and ourselves have been undertaken in instituting and maintaining temporary measures of clearing, oiling, and in some cases filling drains and pools at the Cocorite Estate of the Corporation, a very prolific breeding ground of malaria carrying anophelenes, and plans are being made for the complete eradication of these breeding grounds by permanent major works of drainage and swamp reclamation."

It seems a great pity that the position today, as I write this report, is exactly the same as in 1943 and that Government continues to spend between 10 and 12 thousand dollars each year on measures of a palliative nature only.

One hundred and eighty thousand dollars could have gone a good part of the way in the reclamation of the Cocorite Swamp, and building lots in a residential area which are so urgently needed could have been made available to the hard pressed residents of the City and its suburbs.

I am again to record our thanks and that of the Municipality to the Malaria Division of the Health Department of Government for the close co-operation and the ready assistance given in the various mosquito problems that affect the City.

Due to the work of the Malaria Division malaria bids fair to cease being a major public health problem in the Colony and with the declaration of malaria as a notifiable infectious disease the auspices are now favourable for the complete eradication of malaria, an objective to which we have committed ourselves in keeping with our international obligations.

In the year under report no death returns in which malaria was stated to be the cause of death were received at the Public Health Department.

Malaria—Local Distribution of Deaths, 1947-1956

Sub-Districts	Deaths										
	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
City Proper	—	—	1	—	—	—	—	—	—	—	—
St. Clair	—	—	—	—	—	—	—	—	—	—	—
East Dry River	—	1	—	—	—	—	—	—	—	—	—
Belmont	2	1	—	—	—	—	—	—	—	—	—
Woodbrook	1	—	—	—	—	—	—	—	—	1	—
St. James	2	1	—	—	1	—	—	1	—	—	—
Total	5	3	1	—	1	—	—	1	—	1	—

OTHER NOTIFIABLE INFECTIOUS DISEASES

No case of acute ascending myelitis, encephalitis lethargica, cerebro-spinal fever, puerperal fever, or malaria was notified to the Department in the year under report. No notifications of any of the other dangerous infectious diseases: yellow fever, plague, small pox or alastrim, typhus, cholera or anthrax were received at the Department during the year under report.

NON-NOTIFIABLE INFECTIOUS DISEASES

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

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

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

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

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

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

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

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

Non-Notifiable Infectious Diseases—Home and Hospitals Deaths (1957)

Diseases	Deaths			Hospital Deaths per cent. of Total Deaths	Corresponding percentage for the year 1956
	At Home	At Hospital	Total		
Whooping Cough	—	—	—	—	—
Influenza	7	—	7	—	—
Dysentery	—	1	1	1000.0	100.00
Ankylostomiasis	—	—	—	—	—
Syphilis	6	7	13	53.85	44.44
Leprosy	—	—	—	—	—
Total	13	8	21	38.10	50.00

SYPHILIS

Syphilis is a disease that has a profound bearing on the state of the public health in any community and it exerts this effect by reason of the fact that it presents problems which are in part clinical, in part preventive, and in part sociological.

The clinical problems of syphilis are wide and varied and it is a disease which is capable of affecting every single organ or tissue of the body. It is fortunate that the more overt manifestations of syphilis are nowadays quite rare due to the concentrated drive that has been made and is being made to detect the disease at its earliest stage and the very effective system of treatment that is being undertaken by the Veneral Disease Division of the Health Department of Government as a result of which the secondary and tertiary manifestations of the disease are being prevented from making their appearance.

This Division established in 1943 by Government with the help and advice and under the direction of Col. O. C. Wenger of the American Army and supported then by funds provided by the Development and Welfare Organisation, but now run entirely by funds allocated by Government, has succeeded in so reducing the number of cases of primary syphilis that it is a rare thing nowadays for the medical practitioner to see such a case, which is quite different to what used to obtained 15 years ago.

The clinical cases of syphilis, however, that are met with nowadays and which are a cause of great concern and anxiety not only to clinicians but also to public health workers, are those diseases of the heart and blood vessels, and of the brain and central nervous system which are due to the impact of the syphilitic poison on these delicate and highly vulnerable tissues. These tertiary manifestations of syphilis are in the first place less amenable to treatment than the primary disease, and in the second place they play an important part in the large number of diseases of the heart and blood vessels that are occurring in the City and the Colony generally and which are responsible for an ever increasing toll of mortality. In fact public health officers are concerned that the mortality attributable to heart and blood vessel diseases and to cerebral haemorrhage keep increasing year after year and that the stresses and strains of life under modern conditions have such a fatal effect on damaged heart and nerve tissue. Especially in this fact disturbing, seeing that so very little in the way of preventive action can be taken and there is a feeling of frustration and helplessness pervading the preventive field in the face of this high mortality. It is therefore clear that a campaign directed to the prevention of the disease by educating prospective victims as to the dangers of the disease and as to how it can be acquired, what means can be applied to prevent it, what facilities exist for the early and effective treatment of the disease if by chance it has been acquired and how its spread to others can be limited, is an absolute necessity and it is gratifying to be able to record that such a campaign is being actively prosecuted by the Venereal Diseases Division and the Health Education Division of the Health Department of Government.

From a sociological point of view venereal disease presents the further problem that the prostitute class has to be dealt with seeing that this class of person is a potent factor under existing conditions in the spread of the disease by reason of the fact that no proper system of control of that class exists at the moment, nor does it appear that any control can be put into effect without compulsory notification of cases of the disease which would enable public health workers to locate the sources whence the disease was acquired, and permit adequate treatment to be undertaken to eliminate the infection.

This, however, is a problem of great magnitude and opinion is divided as to the value of compulsory notification.

But there can be no doubt that the numbers of prostitutes who now frequent the night clubs of the City and who are under no kind of compulsory medical care and control, are the main source from which venereal disease is now acquired and through which its spread is effected and it is a matter of great concern to social welfare workers to determine what means could be adopted to supervise and control this class of person.

Deaths from Syphilis 1918-57

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

DYSENTERY, DIARRHOEA AND ENTERITIS

This is an important group of diseases which all have a common clinical manifestation, namely diarrhoea, though they may be caused by a variety of different aetiological agents. Often the diarrhoea is associated with the passage of blood and mucus. Some of these cases are cases of true dysentery caused by either bacilli or amoebae known to cause the disease dysentery, others again are the terminal manifestation of chronic systemic diseases like tuberculosis, and still others again are caused by cancer of the bowel or parasitic disease affecting the small or large intestines.

It is unfortunate that these cases are sometimes labelled diarrhoea and enteritis in the death returns when a more detailed clinical examination of the case or a more accurate record of the cause of death would have placed them in their proper category and a more correct statistical record compiled of the mortality attributable to these diseases.

Quite a number of these cases are cases of the diarrhoea and enteritis of infants which is a disease *sui generis* and which is responsible for a very high mortality among infants and children, particularly those infants and children who are of low resistance and who are or have been bottle fed.

The cause of this disease is not known for certain but there seems little doubt that it is due to an infection whether with an organism of the dysentery type or a virus or some other organism and there seems also little doubt that contaminated foodstuffs are often the vehicle whereby the infection is conveyed. That flies play some part is almost certain seeing that these cases are more prevalent whenever there is an outbreak of fly nuisance, such as occurs during the early dry season in poorly sanitated areas where there is an accumulation of vegetable or animal organic matter with the necessary moisture to provide the medium suitable for the hatching out of fly larvae.

The infants and children in those areas fall easy prey to the disease and seeing that in these areas live the poorer section of the community in whom undernourishment and malnourishment are common findings, it is not surprising that the disease exacts a high toll of mortality.

Preventive measures designed to secure clean wholesome food, milk and ice cream that is effectively pasteurised, and generally to prevent foodstuffs from being contaminated with dirt, dust, vermin, flies and other insects, and at the same time to improve the general state of environmental hygiene with the elimination of congestion and overcrowding, are an urgent necessity if the number of cases in this group of diseases is to be substantially reduced.

During the year under report 35 deaths attributable to diarrhoea and enteritis were reported to the Department and the death returns showed that dysentery was the cause of one death.

Deaths from the Dysenteries—1918-57

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

Deaths from Diarrhoea and Enteritis—1918-57

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

Diarrhoea and Enteritis—Deaths in Sub Districts, 1957

Sub-districts	Deaths
City Proper	10
St. Clair	3
East Dry River	5
Belmont	6
Woodbrook	6
St. James	5
TOTAL	35

OTHER PRINCIPAL CAUSES OF DEATH

Cardiac and Vascular Diseases

Cardiac and vascular diseases are the "killing" diseases *par excellence* in so far as the Urban Sanitary District is concerned and the toll of mortality exacted by this group of diseases shows no signs of lessening; year after year I have to report that more and more residents are falling victims to these diseases. In fact whilst it is possible to record appreciable improvement in controlling the incidence of and in diminishing the mortality from, nearly every other group of diseases that affects the citizens of this City, the fact must be faced squarely that no success whatsoever has been achieved in stemming the tide of mortality caused by cardiac and vascular diseases. It would appear that the price that has to be paid for better personal and environmental hygiene, for comparative freedom from dangerous and other infectious diseases, for an improved standard of living and for increasing longevity is the increasing vulnerability of the delicate tissues of the heart and blood vessels to the stress and strain of modern life, to the complexity and pace of every day life, and to the worry and anxiety associated with the many difficult and trying situations that arise nowadays in our personal and public life. The heart and blood vessels bear the brunt of all these adverse factors and invariably fall victim in one way or the other. Certain it is that the number of cases of hardening of the arteries, of high blood pressure, of heart attack, is on the increase and death is the invariable outcome, if some intercurrent disease does not step in and close the picture.

What is particularly disturbing, however, is that it is difficult to apply any kind of preventive measure because of the uncertainty of the causative agent at work; at most whatever preventive measures can be and are applied are usually in the nature of education as to the means whereby the damage already done by these diseases can be minimised and the final event postponed. It does not appear possible to state with any degree of certainty how these diseases can be prevented and what plan of action should be adopted to prevent them. In a certain number of these cases, however, an underlying aetiological factor can be detected with certainty and in these circumstances the cure of the underlying disease would certainly help in the resolution of some of the damage done to the heart and blood vessels. If for instance, syphilis is the basic cause, the treatment of syphilis would be of some assistance; and the prevention and the immediate and thorough treatment of this disease in its earliest stages would save the heart and blood vessels from being attacked in the later stages.

If chronic diseases like kidney or liver disease, diabetes or chronic alcoholism are playing a part the appropriate treatment of these diseases would relieve the heart of their toxic effects. If rheumatic fever or any of the other acute infectious diseases are responsible for the onslaught on the heart, the adequate treatment of these infections would certainly lessen the strain on the heart. But at most these measures are mainly of a palliative nature and the victim must learn to live within the limits of his heart if he wishes to survive and lead a life of tolerable usefulness.

It is a matter for great regret that these diseases are most prevalent at those age periods of life when the victim is at the summit of his career and when he has acquired the necessary wisdom and experience to be able to render useful service to the community and to his fellow citizens.

Deaths from Cardiac and Vascular Diseases in Age Groups—1957

Forms	0–20 years	21–40 years	41–60 years	Over 60 years	Total
Rheumatic fever	—	—	—	—	—
Chronic rheumatic heart disease	1	2	1	—	4
Arteriosclerotic and degenerative heart disease ...	1	4	38	188	231
Other diseases of the heart	2	4	7	9	22
Hypertension with heart disease	—	1	12	19	32
Hypertension without mention of heart	1	—	3	10	14
Diseases of arteries	—	1	1	10	12
Other diseases of circulatory system	—	1	2	—	3
Total	5	13	64	236	318

CANCER AND OTHER MALIGNANT DISEASES

Cancer and other malignant diseases are diseases of not uncommon occurrence in the Urban Sanitary District, and there appears to be no diminution in the number of deaths they are responsible for, though it cannot be said with any degree of certainty that the incidence of the disease is showing any rapid increase judging from the mortality figures for the past ten years.

When, however, it is remembered that during the twenty-year period 1918-37 the average number of deaths attributable to cancer and other malignant diseases was 47.9 and during the twenty-year period 1938-57 the figure was 83.9, it can be seen that an appreciable and significant rise in mortality has taken place.

And when further one compares the mortality rate per 100,000 population during the same twenty-year periods it will be seen that the rate has increased from 70 per 100,000 for the period 1918-37 to 84.1 for the period 1938-57, which is statistically significant.

What is responsible for this increase is not quite clear, and though the increasing longevity of the population and consequently the larger number of people who survive to the older age groups in which cancer has its greatest incidence, and the improved methods of diagnosis, and the greater consciousness of the ravages caused by the disease which leads to an earlier resort to diagnosis and treatment, undoubtedly play their part, yet this cannot be and is not the whole story, and those factors alone are not responsible for the increasing mortality that is being recorded.

The cause of cancer and other malignant diseases is still obscure in spite of the large amount of research that has taken place and is taking place, and as long as the cause of a disease is unknown it is difficult to determine fully what are the factors that operate in the production of the disease just as it is almost impossible to prevent the disease from claiming the death of its victims.

Cancer and other malignant diseases are almost invariably fatal and the appearance of the disease in the human body amounts to a death sentence. Sooner or later death closes the final scene, and though the surgeon's knife or the application of X-ray or radium may be successful in retarding the progress of the disease, complete cure is hardly ever effected. The early detection of the disease and the early application of treatment may, however, be responsible for lengthening the life of the patient by an appreciable number of years, and it is a course of supreme wisdom not to permit any ulcer to remain unhealed or any suspicious lump to grow for any length of time without bearing in mind the possibility of cancer and so consulting a doctor with a view to establishing the diagnosis.

The sites in the male that are most vulnerable and so more frequently attacked are the stomach and the prostate, and in the female the body and cervix of the uterus and the stomach.

Cancer and other Malignant Diseases—1957

Malignant Neoplasms	Deaths	
	Males	Females
Malignant neoplasm of bucca, cavity and pharynx	2	—
Malignant neoplasm of oesophagus	1	1
Malignant neoplasm of stomach	12	9
Malignant neoplasm of intestine, except rectum	2	4
Malignant neoplasm of rectum	1	1
Malignant neoplasm of larynx	2	—
Malignant neoplasm of trachea and of bronchus and lung not specified as secondary	4	1
Malignant neoplasm of breast	—	11
Malignant neoplasmof cervix uteri	—	6
Malignant neoplasm of other and unspecified parts of uterus	—	12
Malignant neoplasm of prostate	6	—
Malignant neoplasm of skin	—	1
Malignant neoplasm of bone and connective tissue	—	—
Malignant neoplasm of all other and unspecified sites	10	12
Leukaemia and aleukaemia	2	—
Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system	1	1
TOTAL	43	59

Deaths from Cancer and other Malignant Diseases—1918-57

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
1954	96	84
1955	104	89
1956	104	87
1957	102	84

SANITARY ADMINISTRATION

During the year under report the fixed establishment of the Public Health Department comprised 207 employees of whom 52 were members of the permanent pensionable staff and 155 were members of the permanent non-pensionable staff.

But at the end of the year, of the permanent pensionable staff of 52 only 43 were actually permanent employees; six posts of sanitary inspector were vacant, four of these being filled by men in an acting capacity, and two posts were unfilled; and the three posts of health visitor were all vacant there being no suitable and qualified persons to fill them even in an acting capacity.

We were short of our full complement of Sanitary Inspectors who now number 33 including the Chief Sanitary Inspector, the Deputy Chief Sanitary Inspector (outdoor), the Deputy Chief Sanitary Inspector (indoor) the Senior Sanitary Inspector (outdoor) and the Senior Sanitary Inspector (indoor), by six at the end of the year under report but only two of these posts were actually vacant, four being filled by inspectors who were employed in an acting capacity only.

The City was again divided into 18 sanitary districts with a sanitary inspector in complete charge of all the sanitary services in his district. In fact the District Sanitary Inspector represents the Medical Officer of Health in his district and is answerable to the Chief Sanitary Inspector and ultimately to the Head of the Department for the health and sanitary state of his district. He does the house-to-house inspection of his district and in addition is in effective charge of the special services, anti-rat, anti-mosquito, anti-rabies and disinfection, when gangs of these units are operating in his district and when the Sanitary Inspector in charge of the particular Unit is away elsewhere. His duties on these occasions comprise supervision, control and direction of personnel to insure efficiency and discipline. Each District Sanitary Inspector is expected to make 25 house-to-house inspections a day and he is enjoined to "cover" his district, i.e. to inspect each and every premises in his district, at least once in five or six weeks.

Eight other sanitary inspectors were employed in the year under report in the execution of duties of a special nature. One Inspector is the Buildings Inspector and is also directed to inspect, examine and report on layouts, leases, assignments, &c. One Inspector is in charge of, and supervises and controls the Anti-Rat and Anti-Bat Units. One Inspector is in charge of, and supervises and controls the Anti-Mosquito Unit. Three Inspectors are assigned to food inspection work within the limits of the City, of whom one is stationed at King's Wharf and Customs to examine and inspect food on arrival at the port, and the other two see to the inspection, examination, and registration of food handlers and food places throughout the length and breadth of the City. One Inspector is the Health Education Officer in charge of special health education services. The Senior Sanitary Inspector (outdoor) is in charge of water sampling, is the Factories Inspector, and is responsible for the inspection and control of the various catchment areas of the river and well sources of water supply, in addition to his usual duties of planning, directing, and supervising the work of the District Sanitary Inspectors.

The two Overseers and three sub-overseers are attached to, and supervise and control the non-pensionable staff which comprises, the Anti-Mosquito Unit of two checkers, one recorder, two foremen and nine supervisors, together with 17 aedes inspectors Grade A and 36 aedes inspectors Grade B; the Anti-Rat Unit of one timekeeper (for the whole non-pensionable establishment), one checker, eight foremen, together with nine trappers Grade A and 20 trappers Grade B; the Anti-Bat Unit of one checker, four trappers Grade A and one trapper Grade B; the Disinfection Unit of two spraymen and four oilers; and the Public Conveniences Unit, transferred from the City Engineer's Department in 1943, of 14 caretakers.

The Unit maintained by the Corporation for the emptying of cesspits, cesspools and septic tanks was transferred, as has been stated before, to the Public Health Department in 1947 and it comprises 12 cleaners who are jobbers, two chauffeurs, one checker, one carpenter and mason, one assistant carpenter, one cooper and one caretaker and deadman attendant at the Mucurapo Pumping Station, all under the direction and control of the Supervisor of the cleaning of cesspits.

All told in the year under report the outdoor staff of the Department comprised 27 Sanitary Inspectors, two overseers, three sub-overseers, one supervisor of cleaning of cesspits and 155 miscellaneous workers on the non-pensionable staff all under the care, direction, control and supervision of the Chief Sanitary Inspector.

The indoor staff, i.e. employees who work for the greater part of the day in the Public Health Department itself, comprised in the year under report: one Senior Sanitary Inspector (indoor), one Sanitary Inspector Grade B, one Senior Clerk, one First Class Clerk, one Second Class Clerk, one Scientific Assistant, one Stenotypist, two Typists, who were all under the care, control and supervision of the Deputy Chief Sanitary Inspector (indoor).

The work of the indoor staff is, I need hardly state, equally important and just as onerous as the work of the outdoor staff and they are concerned with correspondence of all kinds, messages, complaints, verbal and written reports; the issuing of licences, badges, certificates of registration; the preparation of contacts and other applicants for inoculation; the keeping and replenishing of equipment, supplies and records relative to preventive inoculations; the keeping of the various registers, books, minutes, &c., of the Department; the compilation of statistics, the preparation of monthly, quarterly and annual reports; and last but not least the checking and verifying of the paysheets of the non-pensionable staff, preparation of the salary sheets of the pensionable staff, the keeping and bringing up to date of the various vote books of the Department, in fact all that appertains to financial transactions and records of the Department.

Inspection of Premises, &c., by Sanitary Inspectors—1957

Average Monthly No. of Visits to Dwellings, Shops and other Premises 7,913

Inspection of Stores, Shops, &c.

	Average Monthly No. of Visits		*Average Monthly No. of Visits*
Provision and Meat Shops	218	Sweet Drink Carts	37
Provision Stores	42	Dairies and Cowsheds	39
Restaurants and Cookshops	56	Stables	16
Bakehouses	28	Goat Pens	52
Bread Depots	16	Aerated Water Factories	5
Cake and Ice Cream Shops	189	Soap Factories	2
Fry Shops	16	Other Factories	86
Hotels	11	Schools	41
Markets	5	Common Lodging Houses	6
Spirit Shops	36	Barber Shops	20
Ice Cream Carts and Pails	80	Dyeworks	2
Cake Trays and Baskets	75	Laundries	22
Provision Trays and Baskets	82	Garages	40
Bread Carts and Baskets	36	Tanneries	2
Fresh Fish Trays	23	Public Urinals	5
Oyster Vendor's Baskets	10	Boats	6
Plantain Carts	1		

Results of Notices and Verbal Directions—1957

	Constructed, installed or provided	Repaired	Cleansed	Painted	Elimi-nated	Lime-washed	Oiled
Yard pavements	145	184	—	—	—	—	—
Depressions in yards	—	—	—	—	225	—	—
Yards	—	—	5,296	—	—	—	—
Drains, sinks, gullies, washing troughs, &c.	397	1,090	6,666	—	—	—	—
Lavatories, sewer basins, flushtanks, urinals, bath rooms, &c.	238	251	1,289	—	—	—	—
Privies	161	1,264	—	—	—	648	—
Cesspits	142	147	1,868	—	—	—	44
Manure Heaps	—	—	—	—	274	—	—
Rat Holes	—	—	—	—	178	—	—
Tree Shade, Overgrowths of bush ...	—	—	—	—	1,429	—	—
Dustbins	1,498	262	612	—	—	—	—
Dustbin covers	571	—	—	—	—	—	—
Shops, Parlours, Restaurants, Bakehouses, Hotels, &c.	—	213	3,423	515	—	416	—
Aerated Water Factories	—	1	41	—	—	4	—
Bread Carts	—	—	—	29	—	—	—
Barracks, Common Lodging Houses ...	—	48	18	18	—	31	—
Garages, Kitchens	—	69	—	1	—	89	—
Cowsheds, Stables	—	90	376	—	—	82	—
Tanneries, Soap Factories, &c.	—	—	—	—	—	—	—
Close-boarding, Ventilation of Houses ...	2	—	—	—	—	—	—
Barber Shops and other Workshops ...	—	5	63	22	—	—	—
Schools	—	—	—	—	—	—	—

Reports to Water and Sewerage Department—1957

Reports	*Total*
Leaks, defective taps, chokes, &c.	994

Anti-Rabies Measures—1957

Trapping, etc. of Bats

No. of locations inspected for roosts of bats	14,184

Bats Caught

Artibeus lituratus palmarum (Trinidad Fruit Bat)	163
Artibeus jamaicensis trinitatis (Jamaica Fruit Bat)	237
Molossus m. major (Small Free-tailed Bat)	47
Carollia p. perspicillata (Common Leaf-nosed Bat)	27
Glossophaga s. soricina (Long-tongue Bat)	17
Desmodus r. rotundus (Common Vampire Bat)	5
Centurio senex (Wrinkled face Bat)	2
Rhogeessa parvula (Little Yellow Bat)	1
Phyollostomus d. discolor (Lesser Spear-nosed Bat)	29
Micronycteris m. megalotis (Little Big-eared Bat)	4
Vampyrops helleri (Heller's Bat)	1
Peropteryx trinitatis (Brown Sac-winged Bat)	8
Noctilio l. leporinus (Fish Eating Bat)	2
Promops centralis (Domed-palate Mastiff Bat)	2
	545 *

*Bats caught outside City limits:—

131 Long Circular Road (Maraval) — 17, Artibeus jamaicensis trinitatis — (Jamaica Fruit Bat);

Santa Cruz — 1, Desmodus r. rotundus — (Common Vampire Bat);

Fort Picton — 2, Desmodus r. rotundus — (Common Vampire Bat);

Cocorite Swamp — 2, Micronycteris m. megalotis — (Little Big-eared Bat);

Masson Hospital — 29, Phyllostomus d. discolor — (Lesser Spear-nosed Bat);

Building Plans, etc.—1957

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

On plans, &c., for reconstruction or reconditioning of buildings ...	565
On applications for leases of land in Woodbrook and Gonzales Place	87
On premises in which building operations were in progress	220
On application for certificates of completion of buildings	53

Cleaning of Privies, etc.—1957

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	753
Belmont	655
St. James	372
Woodbrook	88
	1,868
Out Districts	56

Outstanding cesspits up to 31st December, 1957 numbered 63

Average cost per cesspit emptied: $23.51

Prosecutions—1957

Cases Determined by the Magistrate

Offences	*No. of Cases*	*Results Total Fines, &c.*
Failing to comply with nuisance notices	9	Fined $82.00
	22	Reprimanded
	157	Adjourned
	8	Dismissed
	25	Fresh Summonses
	2	Withdrawn
	223	
Breaches of Sale of Foodstuffs Bye-laws	38	Fined $341.80
	27	Reprimanded
	81	Adjourned
	6	Dismissed
	3	Withdrawn
	69	Fresh Summonses
	224	
Breaches of the Yellow Fever Regulations	2	Fined $11.20
	1	Fresh Summons
	3	
Failing to provide a receptacle for House Refuse	7	Fined $35.00
	2	Adjourned
	7	Dismissed
	9	Fresh Summonses
	25	
Failing to comply with an order of the Court	6	Adjourned
	6	
Throwing garbage on the street	1	Dismissed
Failing to provide a sufficiency of privy accommodation ...	2	Adjourned
Grand Total	484	

Cases	*Summary*
56	Fined $470.00
49	Reprimanded
248	Adjourned
22	Dismissed
5	Withdrawn
104	Fresh Summonses
484	

Leave of Absence—1957

	Vacation Leave No. of Days	*Sick Leave No. of Days*	*Local Leave No. of Days*
Aberdeen, K.—Typist	44	—	5
Adams, R.—Typist (Acting)	—	7	—
Assing, C. C.—Deputy Chief Sanitary Inspector (Outdoor)	—	—	2
Boxill, E.—Senior Sanitary Inspector ... ... (Indoor)	—	—	11
Brathwaite, E.—Sanitary Inspector	84	—	—
Cameron, I.—Sanitary Inspector	14	—	—
Carpette, O.—Overseer	126	—	14
Davidson, C.—Sanitary Inspector	—	—	12
De Four, H.—Sanitary Inspector	—	—	14
Dubois, C.—Sanitary Inspector	42	—	—
Forde, G.—Sanitary Inspector	—	—	11
Goodridge, C.—Messenger	—	11	—
Greenidge, St. Aubyn—Sanitary Inspector ...	—	—	7
Hinkson, G.—Sanitary Inspector	—	5	—
Hodge, L. S.—Sanitary Inspector	42	—	—
Holdip, M.—Sanitary Inspector	48	—	3
Howard, J. R.—Sanitary Inspector	—	—	14
Joseph, A.—Scientific Assistant	42	—	—
Khan, V. S.—Sanitary Inspector	—	7	—
Langton, E.—Typist	62	16	—
Marcano, Dr. R. G.—Medical Officer of Health ...	—	6	14
Marcial, R. S.—Sanitary Inspector	—	—	13
Mitchell, K. I.—Sanitary Inspector	—	7	3
Nurse, G.—Sanitary Inspector	—	14	11
Perryman, V.—2nd Class Clerk	—	—	5
Philip, O.—Acting Sanitary Inspector	14	22	7
Rivers, F. B.—Senior Sanitary Inspector ... (Outdoor)	—	8	—
Romain, A.—Deputy Chief Sanitary Inspector ... (Indoor)	63	—	—
Samm, M.—Sub-Overseer	14	—	—
Sampson, A.—Sanitary Inspector	—	—	14
Seon, F.—Sanitary Inspector	—	—	12
St. Cyr, H.—Acting Sanitary Inspector ...	14	—	—
Turner, K. McD.—Sanitary Inspector	14	14	—
Turney, H.—Sanitary Inspector	28	—	—
Wilson, A.—Senior Clerk	112	—	—

			Special Leave
Aberdeen, K.—Typist	—	—	31

			Study Leave
Boucaud, R.—Sanitary Inspector	—	—	306

Staff—Resignations, Study Leave, &c.

RESIGNATIONS:

There were no resignations during the year 1957.

STUDY LEAVE:

Grade B Sanitary Inspector R. Boucaud while on vacation leave in September, 1956 entered Guelph School of Agriculture, Guelph, Ontario, Canada, to pursue a course of study. His leave expired on 28th February, 1957, at the end of which he applied to the Council for special study leave to enable him to complete the course. He was granted permission to complete the course ending 30th April, 1958.

FINANCIAL

Revenue and Expenditure—1955-57

	1955	1956	1957
REVENUE	$ c.	$ c.	$ c.
Revenue collected by the Health Department	929.17	1,283.77	1,012.28
EXPENDITURE			
Salaries and allowances	115,334.63	144,164.77	141,223.46
Back Pay for 1954/1955 (Staff)	—	38,820.56	—
Arrears of C.L.A. for 1956/1957 (Staff) ...	—	—	4,260.43
Arrears of Increments on Salaries to newly appointed employees (Staff)	—	—	720.00
Wages and allowances	149,134.24	140,219.92	144,419.16
Materials, Maintenance, &c.	30,018.29	35,771.47	45,851.96
	294,487.16	358,976.72	336,475.01
Disposal of Night Soil	7,175.41	8,004.13	8,145.67
Emptying of Cesspits	38,542.59	40,486.35	*43,924.35
TOTAL	340,205.16	407,467.20	388,545.03

*Emptying of Cesspits—amount recoverable from house owners $17,718.00.

ACKNOWLEDGMENT

Another year, 1957, has come and gone, and as I come to the end of yet another annual report which is due to take its place in the annals of the history of the Local Sanitary Authority my thoughts go out, as indeed they must, to those who are around me and are part and parcel of me in this our life's work.

Let us never forget that the 207 employees of the Public Health Department are all human beings, flesh and blood; each man is a distinct entity often with a family to look after, with hopes, desires and ambition, anxious to carve a career for himself and his family, and to improve his and their lot in life.

The Head of a Department, whilst never omitting to pay due regard to these important human considerations must, however, leave no stone unturned to secure the complete integration of the individual with the machine, so that the service, which in the case of the public health is the greatest of all that can be rendered in the field of human affairs—*salus suprema lex*—may be properly, thoroughly, effectively and conscientiously performed.

That we of the Public Health Department have in a measure been able to render such service to the City of Port-of-Spain in the year under report has almost entirely been due to the unflagging devotion to duty, the unremitting effort, the continuous co-operation and the unfailing loyalty of the staff, both indoor and outdoor, pensionable and non-pensionable, under the able direction and inspiring leadership of the Chief Sanitary Inspector, Mr. O. E. Forde, Cert. R. San. I., and the Deputy Chief Sanitary Inspector—indoor—Mr. A. Romain, Cert. R. San. I.

It is inevitable, of course, that gaps in the organisation do make themselves apparent at times and that the frailty of human nature makes the call for and enforcement of, discipline an ever present necessity but no opportunity is ever missed to deal with these difficulties and I am happy to be able to record that the machinery of the Department is on the whole kept well oiled and running smoothly most of the time.

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

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