Annual report of the Medical Department / Colony of Seychelles.

Colony of Seychelles.

ANNUAL REPORT

ON THE

MEDICAL DEPARTMENT

FOR THE

YEAR 1930.

Published by Command of His Excellency the Governor.

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1931.

Index

TO

ANNUAL MEDICAL AND SANITARY REPORT FOR 1930.

Annual Medical and Sanitary Report

for the year ending 31st December 1930.

Medical Department,
Seychelles, 11th July 1931.

Sir,

I have the honour to submit for the information of His Excellency the Governor, and for transmission to the Right Honourable the Secretary of State, the Medical Report on the Health and Sanitary conditions of Seychelles for the year 1930, together with the Returns, etc. appended thereto.

I have the honour to be,

Sir,

Your obedient Servant,

JOHN THOS. BRADLEY,

Chief Medical Officer.

To

The Clerk to Governor,

Victoria.

COLONY OF SEYCHELLES.

Annual Medical and Sanitary Report for the year ending 31st December 1930.

SECTION 1.—ADMINISTRATION.

A.—*Staff.*

The establishment for 1930 as sanctioned in the Estimates was as follows :—

European.

Chief Medical Officer.
Resident Surgeon.
Assistant Medical Officer South Mahé.
Surgeon Dentist.

Asiatic.

Assistant Medical Officer Praslin and La Digue.

The Staff of the Hospital was as follows :—

4 Hospital Sisters (Order of St Joseph de Cluny).
1 Headmidwife and Matron Maternity Section.
7 Probationer Nurses.
1 Midwife.
1 Probationer midwife.
1 Ward Maid Maternity.
4 Male Attendants at Hospital (3 for day duty, 1 for night).
4 Ward Maids (3 for day duty, 1 for night).
1 Cook.
1 Cook's mate.
1 Cook to Nurses.
1 Maid Servant, quarters of Sisters.
2 Washerwomen.
10 District Nurses.

Attached to Pharmacy and Chief Medical Officer's Office

1 Dispenser and Chief Clerk.
1 Assistant Dispenser and 2nd Clerk.
2 Probationers.
1 Messenger.

Fiennes Institute.

Master of Fiennes Institute.
1 Nurse.
1 Cook.
3 male Attendants (2 for day duty, 1 for night).
1 Female Attendant.
1 Boy Messenger.

Leper Camp.

Officer in Charge.
Guardian.
1 Labourer.
1 Cook, 1 Washerman (appointed from lepers in Camp).

Anse Royale Lunatic Asylum.

1 Head Male Attendant.
1 Head Female Attendant.
2 Male Attendants
2 Female Attendants.
1 Cook.

Quarantine, Public Health, Ankyiostomiasis and Leprosy Campaign.

1 Sanitary Inspector.
3 Assistant Sanitary Inspectors.
2 Dispensers.
1 Disinfector Attendant.
3 Labourers.
1 Keeper Quarantine Station.

Cottage Hospital Praslin.

In charge of Assistant Medical Officer.
1 Nurse transferred from Seychelles Hospital.
1 Attendant and Cook.

Shortage in Establishment.

During the year there was no shortage in the Medical Department.

Staff Changes in 1930.

Dr P. J. Gonsalves appointed Assistant Medical Officer on 22.7.30.
Mr A. Murray appointed Surgeon Dentist on 22.7.30.
Miss Clivy Collie Appointed Probationary Nurse on 1.1.30.
Miss Julie Morel ,, ,, Nurse on 1.2.30.
Miss Isabelle Verlaque ,, Nurse on 1.3.30.
Miss Amelie Hoareau ,, Nurse on 1.4.30.
Miss Anne Pothin ,, Nurse on 16.5.30.
Miss Solange Hoareau ,, Nurse on 1.8.30.
Miss Valerienne Payet Appointed Head Female Attendant Lunatic Asylum on 1.3.30.

Leave, Resignations, &c.

Mrs F. Hoareau Head Female Attendant Lunatic Asylum Retired on pension on 28.2.30.
Miss I. Verlaque probationary nurse resigned on 31.7.30.
Miss Ada Payet probationary nurse engagement terminated 15.5.30.
Probationer J. Calais engagement terminated on 31.12.30.

B.—*Legislation enacted in 1930.*

PROCLAMATIONS.

No. 2 of 1930.—To amend Proclamation No. 4 of 1905.
Providing for following exception to the prohibition of certain importations from Mauritius for the Prevention of the Introduction of Cattle Plague, "except with the express permission of the Governor in Executive Council and subject to such conditions as he shall be advised are necessary to be imposed.

No. 11 of 1930.—Declaring South East Island and First Class Ward No. 3 at the Seychelles Hospital to be temporary Quarantine Stations.

REGULATIONS.

G. N. No. 14 of 1930.—Praslin Markets Regulations.
Made by the Local Board of Health under Section 10 (1) of Ordinance No. 31 of 1900, establishing two markets at Praslin and providing Regulations for running them.

G. N. No. 43 of 1930.—Regulations made by the Local Board of Health Praslin under sub-sections (1) (c) and (k) of Sec. 10 of Ordinance No. 31 of 1900.
Fixing the Washing limits of Salazie River at Praslin and providing a penalty for persons defiling the river above the Washing limits.

G. N. No. 82 of 1930.—Regulations made by the Local Board of Health South Mahé under Ordinance No. 31 of 1900 Sec. 10 sub-sections (1) (r) as amended by Ordinance No. 7 of 1922 Section 5.
Providing protection for all foodstuffs transported to be exposed or offered for sale.

G. N. No. 124 of 1930.—Regulations made by the Local Board of Health Praslin under sub-sections (1) (c) and (k) of Section 10 of Ordinance No. 31 of 1900.
Fixing the Washing Limits of Civine River at Praslin and providing a penalty for persons defiling the river above these limits.

G. N. No. 144 of 1930.—Regulations made under Section 10 (1) (r) of the Board of Health Ordinance No. 31 of 1900.
Prohibiting fishing within a distance of 1,000 feet from the Cofferdam and providing a penalty for persons contravening the above offence.

C.—*Financial.*

The estimated expenditure for the Year 1930 was Rs 117.131 of this amount:

Personal Emoluments amounted to	Rs	64,231
Other Charges, which include cost of drugs and instruments, dieting, uniform, &c.		52,900
Total		117,131

The total expenditure for the year was:—

Personal Emoluments	Rs	59.602 97
Other charges	,,	55,984 61
Total	Rs	115,587 58
Balance in favour	Rs	1,543 42

The total amount paid by patients for hospital fees in 1930 amounted to Rs 5,570.14, this includes fees amounting to Rs 948.99 paid by patients in the Lunatic Asylum.

The fees in the Maternity Department amounted to Rs 1,666.25.

The amount received for sale of Drugs at the Government Pharmacy was Rs 950.85.

Public Pharmacy.

I would again draw attention to my recommendation made in 1929, as in the interest of the Colony a properly qualified chemist should be in charge of the Public Pharmacy.

Recommendation.

In order to remedy this state of affairs, I would suggest that one of the public scholarships be specially set aside for candidates, who desire to follow a course of study in England as a Pharmaceutical Chemist. Only candidates be allowed to enter for the scholarship that are prepared to take this qualification, afterwards return to the Colony, and engage to work in the public service of the colony for a fixed number of years as a Pharmaceutical Chemist.

Section II.

Public Health.

During the year under review the health of the European Population was good.

The death of one European was recorded the cause of death being "Diabetes Mellitus".

The total death rate for all the Colony in 1930 was 13·99 per 1000 compared with 17·94 in 1929, this death rate is satisfactory and compares favourably with Europe.

The Epidemic of Whooping Cough and Epidemic Jaundice died out at the end of 1929, and after the first quarter of 1930 both these diseases disappeared.

Communicable Diseases.

Influenza of a mild form is prevalent, especially during the change of monsoons.

Dengue and Chicken pox are endemic, sporadic cases are always cropping up, at present these diseases are mild, and no serious symptoms are present.

Elephantiasis is seen in the Outlying districts, and Beri-Beri occurs in the Outlying Islands, especially in the island of Coëtivy where there was an outbreak during the year under review.

Tuberculosis of the Pulmonary type is common amongst the poorer classes.

Leprosy is increasing and this disease requires to be carefully supervised.

The bulk of the population requires education as to how the disease is propagated, and the steps necessary to combat and eradicate same.

No case of Rat Bite fever was observed during the year.

Syphilis and Gonnorrhœa are common diseases in the Colony.

Ankylostomiasis is prevalent but is kept in check by sanitary supervision and free treatment centres all over the Colony.

Amœbic Dysentery is prevalent in some districts in the rainy season.

Jiggers are not increasing but are found all over the Colony, especially in the sandy plains near the seashore.

In my report for 1929 I stated that Malaria is not found in the Colony or the Outlying Islands. This no longer holds good, in June of 1930 there was an outbreak of Malaria at Assumption and Aldabra Islands. The Anopheles Mosquito was found at Aldabra.

In the year 1908 there was an outbreak of Malaria at Aldabra. Dr Power the Assistant Medical Officer, accompanied by Mr Fryer (a member of a scientific expedition under the leadership of Prof. Stanley Gardiner, M.A., F.R.S.) sailed for Aldabra on the 22nd August 1908 arriving there on the 13th September 1908.

A careful search failed to discover the Anopheles mosquito, although malarial parasites were found in the blood of patients.

Under labour conditions in the Outlying Islands I have made a fuller and more detailed report of this outbreak. Further I have attached as an Appendix the report of Dr Mathew, Assistant Medical Officer who carried out the research work and enquiry into the outbreak.

I take this opportunity to state that Dr Mathew carried out this investigation under conditions of great personal discomfort and hardship. No proper food, or accommodation was provided for this Medical Officer during his stay at Aldabra. He contracted sub-jtertian Malaria during his investigations. He deserves praise and credit for the work which he carried out under most trying and difficult conditions.

Vital Statistics.

POPULATION.

On the 31st of December 1930 the estimated population was 28,217 viz :—14,189 males and 14,028 females, being an excess of 161 males over females. The population has increased since 1929 by 629 persons (446 males and 183 females).

ARRIVALS AND DEPARTURES.

During the year 623 persons arrived in the Colony (456 males and 167 females) and 389 persons (234 males and 155 females) left the Colony. Showing an excess of 234 arrivals over departures.

General Natives Population.

BIRTHS.

There were 790 births (409 males and 381 females) in 1930.

The total birth rate was 27·99 per 1000 (males being 14·49 and females 13·50 per 1000). There was an increase of 54 births in 1930 compared to 1929.

DEATHS.

395 deaths were registered in 1930 (185 males and 210 females) as compared to 495 in 1929, showing a decrease of 100 deaths. The death rate in 1930 being 13·99 per 1000) males being 6·55 and females 7·44 per 1000) compared to 17·94 per 1000 in 1929.

STILL-BIRTHS.

56 Still-births were registered in 1930 (32 males and 24 females) showing an increase of 2 Still-births as compared to 1929.

MARRIAGES.

208 marriages were celebrated in 1930 viz :—at the Central Office 151, at the South Mahé Office 28, at the Praslin Office 24 and at La Digue Office 5, showing an increase of 32 marriages as compared to 1929. There was no marriage in Articulo Mortis celebrated in 1930.

CAUSES OF DEATH.

The principal causes of death during 1930 were certified as follows :—

Ill-defined causes 56, Senile Decay 34, Pulmonary Tuberculosis 15, Endocarditis 16, Cerebral Hæmorrhage 15, Gastro Enteritis 10, Lobar Pneumonia 8, Natural Causes 10.

SUDDEN DEATHS.

20 sudden deaths were reported during the year, and a Post Mortem Examination was made in 10, the findings being :—

Aortic Incompetence	1
Asphyxia due to Ascaris Lumbricoides	1
Asphyxia due to drowning	1
Asphyxia due to drowning secondary to Endocarditis... ...	1
Cardiac Degeneration	1
Cardiac failure secondary to Asthma	1
Endocarditis, Double Lobar Pneumonia	1
Cardiac failure due to volvulus of intestine	1
Pulmonary Tuberculosis	1
Shock following laceration of brain and compound communited complicated fracture of right side of Head	1
Total ...	10

TWIN BORN CHILDREN.

22 twin births were registered in 1930 viz :—20 at the Central Office and 2 at South Mahé Office.

TARDY DECLARATION.

7 tardy declarations of births were registered in 1930 in accordance with Section 33 (2) of Ordinance No. 4 of 1893, viz :—6 at Central Office and 1 at Praslin Office.

ILLEGITIMATE CHILDREN.

There were 790 births in 1930, of which 450 were legitimate and 340 illegitimate, 79 of the latter were subsequently acknowledged by their natural father, in accordance with French Code.

Registration.

As I stated in my former reports a very careful index is kept by the Civil Status Dept. of all births and deaths in the Colony, it is impossible to bury a body without a Medical certificate, except in the Outlying Islands.

For cases that are reported without a death certificate, it is the custom for the Civil Status Registrar to call for a Police enquiry into the case. If no foul play, or evidence of injury is discovered the Police Magistrate may order the death to be registered as "Ill-defined Causes".

During 1930 there were 56 deaths registered under this heading.

The Police Magistrate (who correspond to the English Coroner) ordered that post mortems be made in 10 cases.

Graphs.

A graph is attached to the original report of the total deaths due to Infective, Systemic and Preventable diseases in 1930.

The graph attached to the printed report is for 1929 as there are no lithographic facilities in the Colony. The graphs have to be printed in England, and are only published in the following year's report.

General European Population

Enjoyed good health during the year, there is a reduction in the European staff of the Eastern Telegraph Co, and it appears that further reductions of the European staff are contemplated. The remaining European population consists of a few planters, Priests of the Roman Catholic church, Nuns of the order of St Joseph de Cluny, Marist Brothers and a few American and English sailors that have deserted from ships.

European Officials.

These are few in number and they all enjoyed good health during the year.

Native Born Officials.

It must be understood that native born officials comprise whites of European descent, coloured people, and in the case of labourers negro descendants of liberated African slaves.

I attach the number of officials treated at headquarters Victoria during the year, this return includes, Junior Clerks, Messengers, Boatmen, Police and Labourers.

Only a few of these cases were serious, the greater number being minor ailments, such as Indigestion, coughs, slight contusions, etc.

This return does not include those treated in the Outlying districts by the Assistant Medical Officers.

Office of Agriculture	89
Audit	1
Charity	37
Governor's Office	4
Medical	10
Legal	3
Police	132
Port	37
Printing	16
Post Office	11
Public Works Dept.	216
Treasury	2
Victoria Town Board	133
Total	691

Police Department.

The actual strength of the police all ranks on the 31st December 1930 was 89 men.

During the year they reported sick 159 times
" " there were invalided 1 man
" " " medically boarded 2 men
" " " Discharged nil
" " " Recruited 18 men.

The police enjoyed average health during the year, their being no infectious diseases.

Section III.

Hygiene and Sanitation.

This work is carried out under the Superintendence of the Chief Medical Officer assisted by the Medical Officers in the Country Districts.

The staff consists in the Central District of the Chief Sanitary Inspector, one 1st Class Assistant Sanitary Inspector, one 2nd Class Assistant Sanitary Inspector, one Dispenser, one Disinfector attendant, and three Labourers to clean the public latrines, in addition the keeper of the quarantine station at Long Island is attached to the department.

South Mahé in charge of the Assistant Medical Officer has a 1st class Assistant Sanitary Inspector, and a Dispenser.

Praslin and La Digue is in charge of the Assistant Medical Officer of the districts, and he has under his orders a Sanitary Inspector, who also acts as a Dispenser.

The Sanitary Inspectors have their districts mapped out, and with the aid of a bicycle they pass from house to house, examine all latrines, yards, compounds to see that they are kept clean, in addition it is part of their duty to search for and detect any hidden cases of Leprosy.

Dispensers have each a station allocated to them, where they attend daily to dispense medicine in Ankylostomiasis treatment, they assist, when required, the Sanitary Inspectors.

This is a very small staff in a tropical colony to carry out important duties on which the health of the inhabitants depends. An increase is desirable, but due to the present economic condition of the Colony, the marked fall in the prices of all colonial products. I do not at present in the face of these adverse factors, press forward the desirability of increasing this small staff.

Mosquito and Insect-borne Disease.

As I pointed out in my last report, this Colony is surrounded by malarial countries, and I regret to report that Malaria has been found at Aldabra Islands.

It is in contemplation to pass an Ordinance that all sailing ships that may harbour or be suspected to harbour Anopheles mosquitos, must prior to entering the inner harbour, and tying up at the quays, anchor in the outer harbour where after sulphur disinfection, and being declared free of mosquitos they are allowed to enter.

Incidentally sulphur fumigation destroys rats and other vermin, and allows of a deratization certificate to be issued.

Epidemic Diseases.

The Colony was free from any outbreak of epidemic disease during the year. Sporadic cases of chicken-pox, Dengue and Influenza occur but not in epidemic form.

Vaccination of Children.

The lymph supplied was of average quality, and the results were as follows :—

Central District :	1st time ...	391		
	2nd " ...	35		
	3rd " ...	14		
	Total	——	...	440
South Mahé District :	1st time ...	179		
	2nd " ...	8		
	Total	——	...	187
Praslin and La Digue :	1st time ...	90		
	2nd time ...	32		
	Total	——	...	122
	Grand Total		...	749

187 passengers from Bombay and Mombasa were vaccinated. 308 labourers engaged in loading and unloading vessels were vaccinated. 80 persons were sent to Quarantine and vaccinated. 40 Bumboat keepers and people allowed to remove baggage from ships were vaccinated.

Helmintic Diseases.

ANKYLOSTOMIASIS CAMPAIGN 1930.

This was carried out on the same lines as 1929 the Sanitary Inspectors visited at least twice a year all dwelling houses and compounds, to see that they were kept in accordance with the provisions of Ordinance No. 9 of 1917.

The Medical Officer in charge of Praslin and La Digue superintended, and carried out the mass treatment in his district, assisted by a Sanitary Inspector, the latter being a new appointment.

Mass treatment was carried out at the following centres, the vermifuge used was Chenopodium, in conjunction with Castor oil or Magnesium Sulphate.

Return of patients treated and districts visited :—

Seychelles Hospital	...	...	2,268	Brought forward		...	9,619
Victoria Prison	...	...	69	Anse Boileau	...	...	1,003
St Joseph Convent	...	...	398	Anse à la Mouche	...	...	179
Bel Air	...	...	163	Port Glaud	...	...	174
Beau Vallon	...	...	1,142	Grand' Anse Mahé	...	...	92
Bel Ombre	...	...	250	Cerf Island	...	...	7
Glacis	...	...	449	Praslin, Baie Ste Anne	...	...	89
Anse Etoile	...	...	552	,, Grand' Anse	...	...	78
Sans Souci	...	...	273	,, Anse Boudin	...	...	71
Cascade	...	...	638	,, Anse La Farine		...	35
Anse aux Pins	...	...	663	,, Anse Consolation		...	193
Pointe au Sel	...	...	29	,, Anse Kerlan	...	..	111
Anse Royale	...	...	626	La Digue, La Passe	...	...	341
Anse Bougainville	...	...	191	Leper Camp	...	...	26
Quatre Bornes	...	...	1,050	Segregated Lepers	...	...	20
Baie Lazarre	...	...	858	Privately	...	...	300
Carried forward		...	9,619			Total	12,338

A total of 12,338 mass treatment was given in 1930 against 10,898 in 1929.

Leprosy Campaign.

There is no change in the law with regard to Leprosy ; Ordinances Nos. 12 of 1896, No. 10 of 1898, No. 1 of 1919, No. 12 of 1922 are the laws which govern the examination, treatment and segregation of leper.

With regard to regulations for the segregation of lepers with their families, I find that the relatives and friends of lepers treat these regulations as a dead letter. It is hard for them to understand that Leprosy can be stamped out, or at least kept under control, if lepers were prevented from mixing with the public, live apart in a separate house and not eat and sleep with the family and relatives.

Due to the slow progress of the disease, patients being unaware that they had contracted the disease, family sentiment that leprosy must be hidden from the public, the diagnosis of leprosy in a family being a social taint, and other factors such as local prejudice which tends to hide the disease until concealment is of no avail, all this has to be combated.

I consider a propaganda illustrated by films, or magic lantern slides is absolutely necessary, so as to impress on the population that the important factor in the spread of this disease is closeness of contact, living, eating and sleeping under a common roof. That the longer the period of contact, the greater the danger and at the same time show that by undergoing treatment at an early stage, the disease can be arrested and cured.

Unfortunately the Colony is not in a position to purchase films, or educational slides of this nature, there is a private cinema apparatus in the Colony, and the owner would assist by showing films in the different out districts if they were provided ; Naturally all lectures would have to be given in French which is the common language of the inhabitants.

I further desire to emphasise the fact that leprosy is increasing in the Colony. Children are detected by the Sanitary Inspectors in their half-yearly inspection of houses and compounds ; and in the Cascade District, as well as in Praslin Island several families have contracted the disease.

Regulations drawn up under Sec. 4 of Ord. No. 1 of 1919 and Ord. No. 12 of 1922 are disregarded by the appointed guardians, proper surveillance is not carried out by them.

If a guardian fails to carry out his duty there is no punishment provided, except that by order of the Court the Leper patient can be transferred to the Leper Camp and interned.

To remedy this state of affairs I consider it advisable in the public interest, that any person that accepts the responsibility of acting as guardian to a leper, should if he does not carry out his duty as laid down in the "Bond" which he has signed, be prosecuted before Court, and a fine or imprisonment inflicted according to the gravity of the case. It is only by inflicting a punishment on the guardians of a leper, for failure to comply with the conditions imposed by the "Bond", that segregation will become a reality and not as it is at present a mere matter of form.

Treatment was carried out during the year by "Hydnocreol", in my last annual report I published photographs of lepers that have improved under this treatment. The results are satisfactory, but hundreds of injections are necessary, as treatment covers several years. The earlier the case comes under treatment the better, as earlier cases react quickly to hydnocreol and the hope of a cure can be held out to the patient.

As I pointed out in my last report it was intended to transfer the Leper Camp to Round Island Praslin from Round Island Mahé, the latter island being overcrowded.

This transfer took place on the 27th December when 20 male lepers were transferred to the new Leper Camp at Round Island Praslin. It is intended to transfer the 6 female lepers to the same island, but their quarters are not yet built, so they remain on, at the old Camp until quarters are provided. Money has been provided in the Estimates to build the female quarters, and I trust that in 1931, these will be completed, and all the Lepers kept on the same island under the direction and control of the Assistant Medical Officer Praslin.

The new Leper Camp is situated on a small island of about 54 acres close to Bay Ste Anne, Praslin, there are beautiful coconut groves, the patients can have fishing all round the island. Arrangements have been made for each patient to have his own allotment of ground, where he can plant manioc, sweet potatoes, bananas, and all local vegetables. In addition patients can rear poultry, pigs, pigeons and goats. They have established a small band consisting of an accordeon, fiddle, two drums and a triangle.

A small place of worship on the island for these unfortunate patients is desirable, but at present this has to be deferred.

Even with the new quarters now provided at the Leper Camp, the accommodation provided is not sufficient. The twelve double huts (for 24 patients) on the male side early in 1931 had all been occupied and the proposed four double huts (for 8 females) will not be sufficient, as there are 4 more female patients that have been just admitted.

I need hardly point out that the cost for treatment, maintenance and erection of buildings is a very serious item of expenditure for a small Colony like Seychelles.

The cost of maintenance of lepers for 1930 was Rs 7,226.66 the number of known lepers in Seychelles is 71 ; made up as follows :—

Mahé 29, Praslin 13, La Digue 3, giving a total of 45 segregated lepers, and there are 26 lepers in the Camp.

CENSUS OF LEPERS SEYCHELLES COLONY.

Round Island Leper Camps Mahé and Praslin.	Males	Females	Total
Number of patients in residence on 1st January 1930	20	6	26
Total number at Round Island Mahé and Praslin on 31st December 1930.	20	6	26
Mahé Island.			
Number of segregated lepers on 1st January 1930	17	8	25
Number of new cases discovered during 1930	1	3	4
Total number of Lepers at Mahé on the 31st December 1930	18	11	29
Praslin Island.			
Number of segregated lepers on 1st January 1930	5	6	11
Number of new cases discovered during 1930	2	1	3
	7	7	14
Number of patient died	1	0	1
Total number of lepers at Praslin on the 31st Dec. 1930	6	7	13
La Digue Island.			
Number of segregated lepers on 1st January 1930	2	1	3
Number of new cases discovered during 1930	1		
Number of patient died		1	
Total number of lepers at La Digue on the 31st December 1930	3	0	3

Total number of known lepers in the Seychelles Islands on the 31st December 1930 is 71.

General Measures of Sanitation.

No new Sanitary Laws were promulgated during the year, the fundamental law with regard to Public Health is Ordinance No. 31 of 1900 with various amending Ordinances Nos. 3/1902, 32/1902, 10/1903, 8/1910, 7/1922 & G. N. 64/1901.

The Victoria Town Board enforce the provisions of above Ordinances and in the Country districts Local Boards of Health are charged with the same duties.

Special regulations were made during the year to prevent any contamination of foodstuffs transported, exposed or offered for sale.

These regulations were necessary as bread, cakes, etc. had in the past no protection against flies, dust or other forms of contamination.

As I pointed out in my former reports the "Night Soil Service" was carried by the Victoria Town Board of which the Chairman was the Superintendent of the Public Works Departments ; in addition the Board carried out the cleansing and scavengering of the town of Victoria. All the excreta collected was buried in a trenching ground situated about 1½ miles from Victoria.

Under "Sewage Disposal" I have given the new system now in force from the 1st October 1930, as this work is no longer carried out by the Victoria Town Board but has been handed over to a contractor who dumps the excreta in a specially built cofferdam one mile out at sea.

The general work of supervision and control is carried out by the Public Health and Sanitation Staff which comprises the Sanitary Inspectors, dispensers and latrine cleaners.

During the year periodical visits are made on all householders at Mahé, Praslin and La Digue.

A Sanitary Inspector was appointed during the year for Praslin and La Digue, he is also in charge of Round Island Leper Camp, Praslin.

Latrines in Victoria are provided with buckets which are removed to a Cofferdam situated in the outer harbour about one mile from shore. In all country districts each house must be provided with a pit latrine, built according to Ordinance No. 9 of 1917. The law is made specially to prevent householders allowing fæces to be deposited promisciously in the yard.

Estimated population of Victoria in 1930.

Number of natives.		Number of Europeans.		
Males	Females	Males	Females	Total
2,422	2,862	225	401	5,890

Public Latrines in Victoria.

For males		For Females	
Number	No. of Seats	Number	No. of Seats
8	12	1	2

Number of private latrines (bucket and pit)	838
Average pails of night soil removed daily	200
Average soiled pails removed and clean ones substituted daily ...	200
Number of night men employed to clean latrines and remove excreta ...	16

Removal of Refuse.

Number of dustbins	60
Number of cart at work daily removing refuse	3
Number of men employed for removing refuse	9
Amount of refuse removed daily (cart loads)	12

The following prosecutions were entered in 1930.

MAHÉ ISLAND.

Having No latrines.

7 householders were prosecuted.
6 „ „ fined, fines amounted to Rs 27.
1 case was dismissed.

Latrines Full.

8 householders were prosecuted.
5 „ „ fined, fines amounted to Rs 19.50.
2 cases were dismissed.
1 Warned.

Insanitary yards and latrines.

10 householders were prosecuted.
5 „ „ fined, fines amounted to Rs 18.50.
5 cases dismissed.

Food unfit for consumption.

2 Butchers were prosecuted.
2 „ „ fined, fines amounted to Rs 20.

Adulteration of milk.

2 hawkers were prosecuted.
2 „ „ fined, fines amounted to Rs 40.

Exposing food for sale unprotected from flies and dust.

3 hawkers of cakes were prosecuted.
3 „ „ fined, fines amounted to Rs 44.50.

Landing at Leper Camp without permission.

2 visitors were prosecuted.
2 „ „ fined, fines amounted to Rs 41.50.

Breach of Quarantine Regulations.

1 offender was prosecuted and fined, fines amounted to Rs 150.

Meat Inspection at Abattoir, Victoria, by Sanitary Inspector.

Number of oxen slaughtered in 1930	327.
Number of pigs	455.
Number of green turtles	91.
Number of tortoises	4.

The following were found diseased and destroyed:—
One pig with tuberculosis, one pig died at slaughter house, death due to suffocation. Two green turtles were in a putrid condition when brought to slaughter house.
In country districts animals slaughtered for sale to the public are inspected by the Police.

Inspection of Sites.

During 1930 there were 13 applications to keep pigs within the limits of the town of Victoria all applications were investigated and sites for pig-stys marked out.

Sewage Disposal.

The wet system of conservancy was in force until the 1st October the excreta was collected by house to house visitation commencing at 10.30 p.m. and then carted to the trenching ground situated at Pte. Conan about 1½ miles from Victoria.
The Superintendent of the Public Works Dept, who is also chairman of the Victoria Town Board, engaged the personnel, who were under his direct orders, and carried out this service to the satisfaction of the general public.
The amount provided for this service in estimates of 1930 was Rs 7,500.
Due to the difficulty of acquiring a new dumping ground, the owner of the old dumping ground who had just purchased same) having given notice that he objected to the "Night Soil" being trenched in his property, other means for the disposal of same had to be considered.
It was considered a solution of the difficulty would be to have same dumped in the sea, in a special reservoir (cofferdam) that the Government would build on a reef where in the opinion of the Port Officer the tides would not wash same on to the foreshore.
It was further decided that a contractor would be appointed to carry out this service.
The personnel employed by the Victoria Town Board be discharged and the equipment, plant, carts, bullocks handed over to the contractor, at an estimated value, and at the termination of agreement, the plant and equipment to be handed back to the Board by the contractor in the same condition as received.
An agreement was entered into on the 22nd August 1930 by the Government with a contractor for the sum of Rs 8000 per annum for carrying out this service. In addition for all new receptacles over and above the number at the time of the agreement the contractor would be paid Rs 2 per month, for each receptacle emptied three times a week and Rs 3 per month for each receptacle emptied daily.
The terms of the agreement "*inter alia*" provides:—
The service shall apply to all latrines and privees to which the provisions of Government Notice No. 90 of 1922 apply, and further from the end of Victoria Street to the Police Station at Mt Fleury.
All receptacles shall be moved, emptied, and replaced by properly disinfected receptacles between the hours of 11 p.m. and 5 a.m.
The receptacles shall be emptied by the contractor at least three times a week but not more often than every other day.
The contractor shall supply a daily service to any premises when required to do so by the Board.
The agreement is for a period of three years from the 1st October 1930, and provides that during the first twelve months of the currency of this agreement, the Government may terminate it at any time by a simple notice in writing.

The full receptacles are taken in carts to the Contractor's premises near the slaughter house, and thence the night soil is taken out to sea to a cofferdam situated at a distance of about 1500 feet South of the Port Victoria Light House.

In order to allow the contractor to carry out this service, he took over from the Victoria Town Board all the plant and equipment in their possession this was valued at Rs 3,159.83 cts.

Cofferdam.

By means of a pirogue the night soil receptacles are carried out to a cofferdam, built by the Government to the south of the lighthouse.

To protect the public from contaminated fish &c., a Regulation was made under Section 10 (12) of Health Ordinance No. 31 of 1900 which lays down:—

"No person shall whether with net, line, cassier or any other means, or shall gather shell-fish within a distance of 1000 feet from the Cofferdam erected on the reef for the disposal of night soil".

Any person taken in breach of this regulation is liable to a fine not exceeding Rs 250.

Due to the service being carried out by a contractor who had not the experience gained by years, that the servants of the Victoria Town Board had, in the commencement the exchange and replacing of night soil buckets gave rise to a certain amount of complaints. As time went on the contractor by employing the old labourers of the Board overcame this difficulty, but complaints are made from time to time.

At times during the South East Monsoon the weather is strong, and the question arises whether the pirogue with the "night soil" will be able to make the nightly tour to the cofferdam.

In order to supervise the work of the contractor, a night sanitary inspector has been specially appointed, his work commences at 9 p.m. and he will see that the contractor carries out the terms of his contract. This Sanitary Inspector although paid by the Medical Department, is now under the direct control of the Victoria Town Board, and takes all orders and instructions with regard to supervision and surveillance direct from the Chairman of the Victoria Town Board.

Scavengering town of Victoria.

Except for sanitary reasons the Medical Department has nothing to do with this work, in the past the Chairman of the Victoria Town Board had a staff and the necessary carts to collect all domestic refuse, which used to be dumped on the foreshore.

As in the case of the Sewage Disposal, the same contractor has now taken over the Scavengering of Victoria, and the Chairman of the Victoria Town Board (Superintendent of Public Works) has handed over all his plant and equipment to the contractor, who now cleans the streets, collects domestic refuse &c.

Scavengering in Country Districts.

The Local Boards are responsible for the cleanliness of their district. The Assistant Medical Officers are usually members of the Board, and in the case of Praslin and La Digue the Assistant Medical Officer is the Chairman of the Local Boards.

Drainage.

There is no water carriage system of drainage in the Colony, there are open gutters in the town of Victoria to carry off the surface water after rains. The great number of small rivulets in the island act as natural drains for surface water.

Water Supplies.

The Colony has an excellent water supply, the rainfall is adequate, and for drinking purposes the water taken direct from the mountains, is pure, palatable, and free from pathogenic organisms. Except in heavy rain the water is clear and sparkling, and the supply is abundant.

I consider that the good health of this Colony is due to its water supply.

The catchment areas require to be well supervised, and as I pointed out in my last report in the interest of the health of the inhabitants a special River Ranger should be appointed to patrol the river reserves and catchment areas of Le Niol and Rochon Water reservoirs.

Le Niol reservoir is situated 682 feet above sea level, and sends in approximately 300,000 gallons of water a day to the higher level of the town. Its main pipe is 12,800 feet long.

Rochon reservoir is not so high as Le Niol its elevation above sea level is 119 feet; its main pipe is 10,643 feet in length, and it sends approximately about 230,000 gallons of water a day to Mont Fleury and the lower levels of Victoria.

A good water supply is available in case of fire, the pressure through a 5/8 inch Fire nozzle having an average of 45 feet high.

Due to the elevation of the Hospital above the Mont Fleury district the water pressure was at times insufficient and the hospital remained without water.

A new reservoir has been built at Hermittage and a pipe line laid on to the hospital which has now a plentiful supply of water, and a very good pressure.

Offensive Trades.

I have nothing to add to my remarks in the report for 1929, special regulations are made for the town of Victoria to prevent soap factories and bakehouses being a nuisance, due to smoke from the chimineys.

Clearance of Bush and Under-Growth.

As I have in former reports pointed out that all forest trees, especially in the island have been cut down. The trees on River Reserves have been denuded, a serious matter as regards the water supply of the Colony.

In order to remedy this state of affairs the Director of Agriculture has commenced a system of re-afforestation, and at Niol which is the principal "catchment area" for the town of Victoria, during the year various seedlings to the number of 16,425 were planted in the Crown Lands. Of this number 2,130 seedlings were agati, 5000 Lataniers and other palms, Casuarina 1,253 and Chrysobolanus icaco 5,000.

In the Crown Land Reserve at Praslin various seedlings to the number of 3,636 were also planted.

Among the new forest trees that are being propagated is Khya Grandifollolia which belongs to the Mahogany group of African timber and which seems to be hardy and self reproductive.

Schools and School Hygiene.

In the proper sense of the word there are no Government Schools in the Colony, although provided for by Ordinance No. 11 of 1910.

The Government schools were abolished some years ago and were handed over to the Roman Catholic and Anglican Churches.

All the schools of the Colony are Grant-in-Aid Schools for primary education, with the exception of two secondary private schools in Victoria, one for boys the St Louis College managed by the Marist Brothers, the other for girls, St Joseph Convent managed by nuns of of the Order of St Joseph de Cluny.

Education is free at the Grant-in-Aid Schools. In the secondary schools moderate fees are charged ranging from £3 to £6 per annum for day scholars, and from £20 to £25 per annum for boarders.

Books, school materials &c., are charged extra.

The programme of the secondary schools is based on the requirements of the Cambridge Local and London Matriculation Examinations.

Primary education is given at 27 Grant-in-Aid schools, all these schools are under either the Anglican or Roman Catholic churches.

21 schools are Roman Catholic attended by 2,024 children, the remaining 6 are Anglican with an attendance of 403 children.

Local exhibitions are provided for the pupils at the Grant-in-Aid Schools, to enable deserving and intelligent pupils to attend the secondary schools at Victoria.

A Seychelles Scholarship has been established for the pupils of the secondary schools of the Annual value of about £90 tenable for 5 years or £110 tenable for 4 years, with free return passage on completion of studies.

I again draw attention to my recommendation in the annual report of 1929, that one of these scholarship should be specially set aside for a candidate desiring to be educated as a Pharmaceutical chemist in England. The Colony has no trained chemist, and one of the conditions of obtaining the scholarship should be, that the candidate returns to the Colony and works for a specified number of years in government employ.

The medium of instruction in the primary schools up to standard 3 is French, provided that one hour's practice is given daily in English. Result is that French or a local patois of that language is the current language of the Colony.

Teaching of Elementary Hygiene is now compulsory in all the Grant-in-Aid Schools. The small catechism that I compiled on this subject is now in common use at all the schools.

In order to encourage and stimulate the teaching of Hygiene in the schools of the Colony, with the permission of His Excellency the Governor I have presented for competition in each school a Silver Medal. I attach as an annexure to this report the Rules drawn up for the examination for the medal, which is under the direction and control of the Inspector of Schools. This examination will take place during 1931.

Technical Education.

Steps have been taken at Victoria to have technical education for boys. This scheme was inaugurated some years ago, and classes are held daily from 2 p.m. to 4 p.m. 33 boys attend the carpentery class and 27 the blacksmith.

Type of School.

Most of the Grant-in-Aid Schools are mixed schools, separate buildings for boys and girls are provided at the following places :—

Victoria, Anse-aux-Pins, Anse Royale and La Digue.

Attendance.

The number of pupils attending both primary and secondary schools was 2,858 compared with 2,845 in 1929, this represents about 52o/o of the total number of children of school age.

The number of children of school age in the Colony is estimated at 2,748 boys and 1,769 girls total 5,517.

Comparative statement of attendance.

Type of School.	1926	1927	1928	1929	1930
Secondary	379	398	405	357	373
Primary (Grant-in-Aid) ..	2,002	2,327	2,301	2,382	2,427
,, (non-Aided) ...	354	46	71	106	58
Total ...	2,735	2,771	2,777	2,845	2,858

The attendance in Secondary Schools is satisfactory, the average being about 86 o/o of the total number of children on the registers.

In the Primary (Grant-in-Aid Schools), the percentage attendance was 77·8 as against 74·5 in 1929.

Comparative statement for Grant-in-Aid Schools.

	1926	1927	1928	1929	1930
Numbers on roll ...	2,002	2,327	2,301	2,382	2,427
Average attendance ...	1,508·5	1,698·5	1,698	1,776	1,888·5
Percentage Attendance...	75·5	73	74	74·5	77·8

These figures show a steady increase in the numbers on the roll.

The question of compulsory attendance is under consideration.

School building and Equipment.

Most of the buildings are in a satisfactory condition. Within the last five years, new buildings have been erected at the following centres :—

Cascade, Anse Etoile, Anse-aux-Pins (these are fine stone buildings); St Louis free school, Anse Boudin and Anse Kerlan (Praslin).

Repairs, additions and improvements have been effected to the following schools :— Victoria (C. of E.), Victoria R. C. ; St Paul's ; Anse Boileau and Baie St Anne (Praslin).

Owing to the increase in numbers however, extra accommodation is still required at the following centres : Anse Boileau (Mahé) St Mark's and Anse Kerlan (Praslin).

The present school building at Anse Kerlan was erected in 1929, the number of children at that school has doubled within 2 years, the result being that an addition to the school is urgently required.

The same remark applies to St Joseph's Convent Free School, although only quite recently an extra class room was erected there.

The schools are being gradually properly equiped. Each school should possess a small library to which the children should have access, and every effort should be made to encourage them to read at home.

When once a commencement has been made, additional books may be procured without expense by interchange between school and school. Special facilities are also offered to school children at the Carnegie Public Library, where books may be obtained by them free of charge on the written recommendation of their respective Head Teachers.

Education for the year cost Rs 41,586 towards which the Government contributed Rs 22,214, the balance Rs 19,352 being found by the Anglican and Roman Catholic Missions. The Roman Catholic Mission found Rs 16,688 and the Anglican Church Rs 2,684.

As an appendix to this report there is given the result of the medical inspection of all the grant-in-aid schools, with remarks on the health of the children, the cleanliness and sanitation of each school.

The Government Dentist since his arrival made an examination of the teeth of children in the country districts.

The report on the Schools visited by Mr Murray R.D.S, is as follows :—

The result of the Dental Surgeon's examination of the children in six country and four Town Schools in Mahé is appended below.

COUNTRY SCHOOLS.

Number of children inspected			270
,,	,,	with perfect dentition	108
,,	,,	,, carious teeth	486
,,	,,	,, saveable teeth	195
,,	,,	,, unsaveable teeth	291.

TOWN SCHOOLS.

Number of children inspected			379
,,	,,	with perfect dentition	229
,,	,,	,, carious teeth	883
,,	,,	,, saveable teeth	442
,,	,,	,, unsaveable teeth	441.

Considering that not in a single instance has a child received any dental attention whatever, and their knowledge of oral hygiene practically nil, the mouths, in comparison with other nationalities, are in an excellent state of preservation.

As will be seen by the above figures, the percentage of children with perfect dentition, viz. (every tooth sound), in the Country Schools is 40 o/o, and in the Town only 30 o/o, the difference, in my estimation, is the healthier surroundings in the country, together with the ability of obtaining more fruit and vegetables than in town.

A few remarks on the injuries caused by the diseased condition of the mouth and teeth would not be amiss.

Through the food being bolted and by absorption and swallowing of the poisonous products of such diseased conditions, indigestion and many other complaints arise.

Lack of proper exercise of the muscles of the jaw is one of the chief contributing causes of adenoids, and mouth breathing (also due to lack of exercise), more especially when associated with decayed teeth is an important factor in the causation of enlarged tonsils, each of these conditions affecting all the others adversely.

Diseased teeth are also one of the chief direct causes of septic and tubercular glands in the neck.

It has been estimated that over 50o/o of the diseases of children might be avoided by the maintenance of a thorough hygienic condition in the mouth.

From the teaching point of view, it must be plain that a child suffering from bad teeth is unable to learn satisfactorily, and it has been repeatedly demonstrated that children in whose mouths dental defects have been remedied are well in advance of those not so treated in their intellectual and moral capacity.

Labour Conditions in Outlying Islands.

In the annual report for 1929 I published a map of the Outlying Islands, as well as a short description of all the islands of the Archipelago, with their distance from headquarters at Mahé.

The floating population of these islands is estimated approximately at 1,000, but the guano islands have at times large numbers of labourers that are sent specially to load ships.

During the year 1930 the number of labourers engaged was 825 for the following Outlying Islands :—

Daros	...	...	22	Brought forward		...	605
Coëtivy	...	...	62	Marie Louise and Desneufs		...	18
Denis only	...	...	92	St Pierre	...	...	66
Denis and Alphonse	...	...	130	Remire	...	...	4
Desroches	...	...	13	Amirantes	...	...	62
Poivre	...	...	22	Astove	...	...	19
Providence	...	...	23	Alphonse Group	...	...	18
Aldabra Group	...	...	241	Farquhar	...	...	26
				Ile Plate	...	...	7
	Carried forward	...	605		Total	...	825

In addition to labourers for the Outlying Islands, labourers are recruited by the Director of the "Société des Iles Malgaches" for the French Islands which are under the dependency of Madagascar.

Reports received from the Authorities at Madagascar show that the health conditions in the French Islands are good, the ration supplies liberal, being of the same standard as that laid down for the labourers of the Seychelles Outlying Islands. Returned labourers from these islands had no complaints.

No statistics are available of the number of cases prosecuted in these islands for offences relating to indicipline, or any complaints relating to rations, further no statistics are available of the number of labourers who returned back from the Outlying Islands in 1930.

According to Civil Status Returns there were 10 deaths in these islands during the year, 5 males and 5 females, the cause of death was returned as "Ill-defined Causes".

There were 8 births registered 6 males and 2 females.

The principal owners and lessees of the Outlying Islands petitioned on the 9th September 1930, due to the fall in the price of coconuts and that the islands were not paying, that ground maize be substituted for rice, and that Birds' eggs or meat of any description for the ration of lentils.

It was pointed out that a disease called "Décoquée" is more or less prevalent in the Outlying Islands, and this is a deficiency disease of Vitamin B. (Beri-Beri) and Vitamin C. (Scurvy) in the dietary scale.

I consider that this "Décoquée" is a mixture of Beri-Beri and Scurvy in the same individual, it must not be confounded with Pellagra, to which it has a certain clinical affinity, the latter in my opinion being an entirely different disease.

The Vitamin C. preventitive of Scurvy is contained in fresh fruits such as oranges, lemons, and fresh green vegetables, also in roots and tubers, and in small quantities in fresh meat and milk. It is deficient in all dried and preserved foods.

In the Outlying Islands the above fruits and vegetables are rare, the small supply is kept for the use of the Manager, which in my opinion explains why this class are never attacked by Décoquée.

I could not recommend that lentils or dholl be deleted from the ration scale, as dholl, beans, peas and lentils are a valuable food, but in the dry condition they have no antiscorbutic properties. These lentils can develop Vitamins B and C if they are soaked in water, kept in a cool place for 24 hours, the water then drained away, and the soaked seeds spread out in layers, not exceeding 2 or 3 inches in depth, kept moist in a cool place for about 48 hours, after they have started germination they should not be allowed to dry, but should be cooked as rapidly as possible. Lentils 20 minutes, peas or pulses 40 to 60 minutes.

I was unable to recommend that dholl be discontinued as it is a most valuable food, and if anything the ration should be increased. I saw no objection to substituting fresh birds' eggs for fresh fish but not for lentils.

In Reg. No. 142 of 1928 which lays down the minimum scale of rations, it is allowed to substitute a half ration of ground maize for unpolished rice. I did not consider it advisable to recommend an all maize diet, as the labourers of this Colony are rice eaters, and maize diet gives indigestion as they are not accustomed to same.

Meat is practically unknown in the Outlying Islands, an odd pig at times, in some islands labourers are not allowed to keep poultry, and pigs usually belong to the owner or lessee of the island, the question of substituting meat of any description for lentils could not be considered.

Coetivy Island.

A very serious state of affairs was brought to light in the management and administration of this island. The labourers complained that the lentil ration was cut off, that pumpkins and fresh fish was refused to the men, ill-treatment by the manager. In the sale of goods to the labourers there was profiteering. Coëtivy Island is notorious as being a hot bed for cases of Beri-Beri and there was an outbreak during the year under review.

It was considered advisible due to complaints and representations made by the returned labourers, some of whom were seriously ill in hospital with Beri-Beri that a Medical Officer be sent down to investigate.

His report on Coëtivy is attached as an Appendix to this report, and the following salient points were noted.

1. Water supply is insanitary and contaminated.
2. Huts are damp and insanitary.
3. Chiggers are prevalent even the pigs are infected.
4. Latrines insufficient and full.
5. No hospital accommodation for females, medicine—bottles have lost their labels poisons are not under lock and key.
6. Rations issued are not in accordance with legal enactments, and the men show signs of underfeeding.
7. Bad management, prices in shop are excessive, the books, accounts badly kept and scribbled.

I am of opinion that Beri-Beri so prevalent in this island is due to a combination of the following factors :—

(*a*) Want of fresh green food
(*b*) No ration of lentils
(*c*) No fresh meat or fish
(*d*) Insanitary surroundings and buildings
(*e*) Insanitary water supply
(*f*) Bad management.

Aldabra and Assumption Islands.

The occurrance of Malaria at the Outlying Islands is a serious matter for the Colony, as there is a chain of islands extending from Madagascar to Mahé and due to trading schooners touching at one island after another, to land stores and collect copra, the question of the

introduction of Malaria into all the islands of the Colony must be considered, and active steps taken that the malarial infection is limited to Aldabra, and that other islands of the group are not affected.

When I arrived in this colony Dr Brooks a former Medical Officer was positive that at times he got malarial cases from the Outlying Islands.

Mr Spurs a gentleman who acted as manager for over half a century of different Outlying Islands was positive that malaria occured at times in Aldabra.

Dr Brooks was not conversant with modern microscopic examination of the blood but he was a capable clinical observer.

Mr Spurs was a very intelligent European and had a practical knowledge of malaria acquired in Africa and elsewhere.

We are in presence of an outbreak of malaria in 1908, which in the Annual Medical Report is recorded as "the most interesting medical event during the year". The outbreak in 1908 started during the month of March 1908, and the first case occurred eleven days after the arrival of a batch of labourers, who had been taken straight from Madagascar to Aldabra, and who were suffering from malaria.

The first case admitted to the hospital at Mahé was on the 29th July 1908; note the seasonal incidence in the present outbreak which occurred in April and first case noted on 16th July 1930 at Mahé by the C. M. O.

Dr Power was sent specially to Aldabra and arrived there on the 13th September 1908 and left on the 20th September 1908. He was accompanied by Mr Fryer a member of a scientific expedition that came from Cambridge University under the leadership of Professor J. Stenley Gardiner, M. A., F. R. S, to study the flora of the Seychelles Archipelago.

Mr Fryer gave an account of his visit to the Royal Geographical Society and read a paper to that society on the 20th April 1910, where he speaks of his visit to Aldabra and failure to find the Anopheles Mosquito.

I have in my description of Aldabra Island drawn largely on the paper of Mr Fryer for the flora of that island as well as of Assumption.

Dr Power in 1908 treated 31 cases at Aldabra, the diagnosis of Benign Tertian being confirmed microscopically and found that since the commencement of the outbreak there had been 98 cases. No fresh case arose during his stay on the island.

On arrival at Aldabra Dr Power carried out immediately the oiling of every available pool and puddle that he found on Picard Island. In my opinion prior to oiling he should have searched for mosquito larvæ and pupæ.

This time prior to oiling, the mosquito larvæ and pupæ were taken from the pools and bred out in a special breeding case that was constructed at Mahé prior to departure. Within a day 4 imagines, 3 males and one female had hatched out, later on quite a number bred out but did not survive the voyage from Aldabra to headquarters after living 10 days at sea.

In the main settlement (Picard Island) Dr Mathew examined 966 pools near the camp:—

Had no Mosquito larvæ	687	pools.
Pure Anopheles larvæ found in	23	„
Culex, Stegomya & Anopheles in ...	256	„
Total ...	966	

After the indentification of Anopheles Mosquito, all these pools were oiled with a mixture consisting of Crude oil 4 parts to one of paraffin.

Later reports from the islands state that the incidence of the disease is much diminished, and only an odd case of malaria reported. This I attribute to destruction of mosquito larvæ, and the administration of quinine.

I consider that the principal effort at eradication should be carried out at Picard the main settlement.

Due to the formation of the other islands of the group, the cost would be enormous and almost impossible if oiling was carried out in all the islands.

One factor that has to be taken into consideration is that for several months of the year a dry season exists, which dries up these pools and puddles.

There was gross carelessness with regard to the water tanks at Aldabra. They are not mosquito proof, and the barrels in which water is kept are quite open at the top, they were found swarming with mosquito larvæ.

The question arises are Anopheles indigenous to Aldabra, or are they occasionally introduced and due to want of breeding facilities die out to be reintroduced later on from passing ships.

We are in presence of the statements of the late Dr Brooks and Mr Spurs but these statements are not scientifically confirmed.

In 1908 the finding of Malarial parasites was confirmed, but there was failure to find the Anopheles and further after oiling and distribution of quinine the disease appears to have died out.

We are now in presence of the outbreak in 1930, which has the same seasonal incidence as that of 1908, after a lapse of 22 years, the known facts with regard to this outbreak are as follows:—

On the 16th July I saw the first cases back from Assumption and Aldabra clinically the cases pointed to a malarial infection, and again on the 22nd July further cases. Bearing in mind the outbreak in 1908 I considered it advisable that immediate steps be taken to enquire into the outbreak; I so reported to the Govenment in July 1930.

I had further information that a Government boat from Dar-es-salaam had *without authorization* touched at Assumption Island on the 16th April, and that the first outbreak of fever occurred about 10 days after its departure.

Blood examination of the patients that I saw on the 16th and 22nd July failed to reveal the malarial parasite, this I attribute to the quinine that was taken by these patients for the fever at the island, and on their voyage to Mahé.

No further steps were taken until the 15th November 1930, when a local practitioner reported to His Excellency the Governor that he had found the parasites of Malaria (M. T.) in the blood of patients back from Aldabra, this resulted in the Government taking steps to make an enquiry, Dr Mathew who had previous experience in Malarial survey was detailed for this important duty, he was to leave at the end of December, but did not sail until January 1931 arriving at Assumption on the 16th January. He left Aldabra Island on the 1st February 1931 on the S. V. Zipporah on his return voyage to Mahé.

Dr Mathew has put forward certain schemes for the eradication of malaria in his report (vide annexure).

In my opinion the cheapest, simplest and most effective is to evacuate the present labourers for a period of three months, as they are all potential carriers. Oil all pools and prevent the breeding of mosquitos at the main settlement (Picard Island). Water tanks to be mosquito proof and to be covered with corrugated iron roofs, and protected at sides with wire netting, and all water barrels to have bungs which are kept corked when not in use.

After the infected breed of mosquitos have died out, only to allow labourers back that have not lived in a malarial country, or have not previously contracted malaria.

If there are no carriers after the infected mosquitos have died out, malaria will not be propagated.

Aldabra is only a fishing station with a limited number of inhabitants, and it creates no special hardship to close it down for a couple of months.

The danger of invasion of the other chain of islands must not be overlooked, and this can be met by preventing ships coming from places or islands where malaria is endemic to communicate with the Outlying Islands prior to receiving pratique at Victoria where the ships can if necessary be fumigated.

Mauritius was a healthy colony until about 1862, when the Anopheles gained entrance, and we have the recent case of Barbados that had an outbreak of malaria in 1927.

On the 3rd March 1931 I forwarded to Dr Stanton C. M. G. Chief Medical Adviser to the Colonial Office a collection of Anopheles Mosquitos and larvae collected at Aldabra for the identification and classification of same by the School of Tropical Medicine London.

As both these islands have a medical importance I attach a description of same which I have compiled from authoritative sources.

Aldabra Islands.

Aldabra Island is situated in Lat 9o 22' 23" S., and Long 46o 14' 41" E., it lies about 240 miles north west of Cape Amber, Madagascar and 600 miles south west of the Seychelles Archipelago. It is 630 miles distant from Mahé the principal island and headquarters of the Seychelles Archipelago.

In form it is an atoll with a long axis of about 24 miles, and a short axis of from 5 to 10 miles, the long axis running approximately east and west. The land rim measures some 60 miles in circumference, and averages a mile in width, though at its widest, it is nearly 5 miles from lagoon to sea.

Aldabra is divided by narrow passages into four main islands which are called respectively Picard lying to the north west, Polymnie and Malabar to the north and Main or South island, completing the circumference from the north east to the west. Round the outside of the land rim is found a narrow fringing reef which is devided by the channels from the larger passes, and is ill-defined in the extreme east.

The lagoon shore of the land rim is overgrown with dense mangrove swamps, this lagoon is 15 miles long and averages 4 miles in width, and has an area of about 50 square miles.

Picard Island is the main settlement and consists of the manager's house, stores, labourers' huts and the sheds for drying mangrove bark.

The islands are difficult of access to the interior, the majority of Aldabra is covered with an extremely dense jungle of a tree (Pemphis Acidula) in addition a further obstacle to exploration is given by the surface of the soil which forms a miniature rocky forest of points, pinnacles and sharp edges, very formidable to men with bare feet. This overgrowth of the soil is called in creole "Champignon".

Fresh water is only found on Aldabra in the Main island, at a place known as Takamaka, here the rock is more or less flat, and covered with a thin layer of guano soil.

The whole Aldabra is either coral or secondary derivatives formed from coral reefs, and in many parts of the island there is highly metamorphosed coral rock, containing inclusions of Calcium phosphate derived from the deposit of guano, which was formerly plentiful in the island. In parts of the Island the coral sand has by the action of the sea and wind have formed large sand dunes 50 to 60 feet high, which are the highest point on the atoll. In the neighbourhood of the sea-cliffs, the coral rock itself reaches a maximum height of 12 to 20 feet above the sea level, and then sinks gradually down to the mangrove swamp where there is usually a sharp drop of 2 to 4 feet formed by low overhanging cliffs.

Erosion is common along the whole of the lagoon shore, and this lagoon erosion is more rapid than sea erosion. Sea erosion takes place all round the Island, and the forces at work in the desintegration is one of loss of the soil of the Island.

Research examination shows that the lagoon is a recent formation which did not exist when Aldabra rose from the sea and became land. With this short statement of the general structure of Aldabra I will refer to its Flora and Fauna.

The flora is remarkable in that the plants are not such as are usually found on coral Islands. The Island is covered with Pemphis jungle (Pemphis Acidula). The Pemphis plant varies from 10 to 15 feet in height. The second type is found in what may be called the open country and is composed of ninety species of trees, schrubs and herbs.

Small clumps are composed of Pandanus, Ficus, Dracoena alternate with open spaces sparsely covered with low bushes, among which Tangh ain (Euphorbia Abbotte) is conspicious.

The next region is the mangrove swamp, this for est is very flourishing and clumps of Bruguiera attain a height of 60 feet.

Fauna. The animals of Aldabra are not numerous, the most interesting is the giant land-tortoise (Testudo elephantina) it is found principally in Main Island, but it is common throughout the atoll. The edible green turtle (Chelona Mydes) still occurs in vast hordes, they arrive about December and up to April the sea seems alive with turtles. These turtles are of economic importance to the atoll, and are slaughtered in huge quantities each year for export, so much so that there is noticed a marked diminution in the numbers that resort to the island for breeding purposes.

The tortoise shell (Chelona Imbricata) also occurs sparingly in the lagoon round the shores.

Birds are the prominent feature of the atoll, there are twelve species of land birds all peculiar to Aldabra, and a fair number of widely distributed sea-birds and waders. The land-birds are all related to the Madagascar species. Most characteristic is the (Ibis Abbotte) closely resembling the sacred Ibis of Egypt, it breeds in the mangrove swamp and acts as a camp scavenger. A peculiar Rail (Dryolimnes Aldabranus) lives on small insects and also crustacea from the brackish pools. A bird peculiar to the island is the Frigate (Frigate Aquila and F. Ariel) is quite plentiful, an enormous colony breeds in the swamps. They are almost entirely parasitic on the gannets, which they force to disgorge. These frigate are destructive to the young turtle which are destroyed in thousands on their way to the sea after they are incubated in the sand.

Curlews, and Whimbrel are common in the mangrove swamp, the principal waders are Turnstones (Strepsilas Interpres) and Sanderlings (Calidris Arenaria).

Wild goats the descendants of tame goats are now plentiful, and they roam in flocks all over the atoll. Due to the peculiar formation of the island, their capture is difficult, they are steadily increasing year by year.

Fish is very plentiful and dried fish is exported to Mahé, this with turtle killing is one of the principal industries of the island.

At the time of the visit of the A. M. O. there were 30 men, one woman and 25 children in the pay of the company in addition 43 persons not in the pay of the company, the latter includes labourers employed by contractors of calipee and their wives.

Assumption Island.

The island which is not an atoll, lies about 20 miles South East of Aldabra, it measures 3¾ miles long by 1½ mile wide, and has a maximum rocky elevation of 20 feet. The shore on the west side coast consists of a sloping beach, but the greater part of the west is bounded by high cliffs like those of Aldabra. Assumption is an elevated coral reef.

The surface of the land is less bare than on Aldabra, as it has received a large deposit of guano, which along the east coast forms a narrow plain, and in many cases has partially choked up the pits in the rock. The principal business of this island is the exportation of this guano, and calipee obtained from green turtle.

The island is covered with low tangled vegetation composed mainly of Aldabra plants. Animals are not so numerous as at Aldabra, green turtles are more numerous than Aldabra, and are slaughtered in large quantities each year for export of calipee.

Birds are not numerous but comprise certain species of cuckoo, rail, pigeon, and gannet which are stated to be a distinct species.

The great difficulty in this island is fresh water, wells are dug in the sand to provide a supply of slightly brackish water.

Water to supply the labourers has to be collected during the rainy season and stored in tanks.

At the time of the A. M. O.'s visit the settlement consisted of 88 men, 15 women and 16 boys employed by the company, and 34 women and 13 children not on the paysheet of the company, and not paid by the company.

Recommendations with regard to the Outlying Islands.

I consider it necessary that a medical officer visits the outlying islands at least once a year.

In 1930 no inspection was carried out, except in the case of Coëtivy Island where there was an outbreak of Beri-Beri and the Aldabra group due to the outbreak of Malaria. Both these islands were visited of necessity on account of the outbreak, the other islands of the Archipelago were not inspected or reported on.

We have now in the colony auxiliary engines attached to some of the sailing vessels, this reduces the time limit, and absence of medical officers should not exceed 15 days from their district.

It is most important to inspect and control the health of these labourers, to see that rations, water, sanitary conditions in these far away islands are as laid down in the ordinances.

The report on Coëtivy Island (vide annexure) reveals the careless and lax manner in which islands are at times administered, and at Aldabra the conditions were not much better.

That all labourers prior to their departure be medically examined. This is in the interest of the labourers, some leave with advanced venereal disease, others with hernia, and in these far away islands they have no skilled medical assistance.

That steps be taken by a competent authority to see that proper rations, medicines, &c., are forwarded, and that an inspection to this effect be carried out at Port Victoria. That rations are of good quality, and in accordance with the ration scale laid down by law.

It should not be difficult to devise some means to control the despatch of food, and it would make owners and lessees of islands, pay more attention to the feeding of their labourers.

Steps should be taken to supervise returning labourers, the number that return from each island, any complaints they may desire to lay before a competent authority, and deaths or illness that occurred in the Outlying Islands, as well as fines inflicted or any other disciplinary punishment imposed.

Food in relation to Health and Disease.

The staple food of the native is generally polished rice imported from India, fish, and when it can be got turtle, very little meat is used by the labouring class but the better off families use pork, fowl, ducks, eggs &c.

The native supplements his food with breadfruit, manioc, sweet potatoes, bananas. At certain seasons of the year there is a plentiful supply of eggs which are collected from sea birds on Outlying Islands.

Except on the Outlying Islands Beri-Beri is rare on the main island; Decoquée only occurs in the Outlying Islands.

Fish curing is carried out either by drying in the sun, and smoking, or first salting and subsequent sun drying, the latter system is the commoner.

Soda water factories and the only Ice factory are visited and inspected by the Sanitary Inspector and are kept in a clean and sanitary condition.

Regulations are now in force that hawkers of cakes and other eatables must have same covered with a clean cloth to prevent contamination with flies and dust; and this also applies to shops that exhibit same for sale.

Bakehouses are inspected, hawkers of bread and cake supervised, and the sellers of fresh milk controlled. During the year 2 hawkers of milk were prosecuted for adulterated milk, and fined Rs 40 and two merchants were fined Rs 20 for selling food unfit for consumption.

Bacca made from cane juice is the native drink, it is heavily adulterated but detection is difficult.

At the Abattoir of Victoria 327 oxen, 455 pigs, 91 green turtles and 4 land tortoises were killed for sale in the public market, of these 4 animals were found diseased and destroyed.

During the year there was a marked fall in prices especially of rice, sugar, coffee and most imported food.

The cost of living has decreased, but the lower cost of living (due to the marked fall in the price of coco-nuts and all colonial products) has not given any material advantage to the labourers as reduced wages are now paid.

B. Measures taken to spread the knowledge of Hygiene and Sanitation.

It is compulsory now that all grant in aid schools have to receive instructions on this subject during school hours. The Catechism that I published in French in 1929 is now in the hands of the school children, and as I have already stated under School Hygiene a silver medal will be presented for competition in each school in 1931. The medals have arrived and are in the possession of the Inspector of Schools, who will award same according to the Rules attached as an annexure.

Special teaching is devoted to Ankylostomiasis. On this important subject I have published a special catechism (also in French) showing how the disease is propagated and the manner to control same, special emphasis being laid on soil pollution, sanitary latrines, cleanliness of yard and surroundings and manner of infection.

C. Training of Sanitary Personnel.

Special teaching classes were again carried out during the year, in order to give instruction to the Assistant Sanitary Inspectors. The Chief Sanitary Inspector had no difficulty in passing the advanced examination for the Certificate of Hygiene and Sanitation of the British Red Cross Society, two Asst. Sanitary Inspectors also qualified for the First Certificate of the same society.

The standard of the examination can be judged from the questions set, which are given as an annexure.

The lectures were of a practical nature covering food supplies and the common causes of adulterations, tinned food, tainted fish, inspection of bakehouses, mineral water and ice manufacture. The construction of hygienic latrines, inspections of urinals, meat killed at slaughter house, adulteration of milk, articles exposed for sale in shops, fumigation of cargo from vessels, sterilisation of passenger's baggage, supervision of night soil service and its disposal, prophylaxis of Ankylostomiasis and Leprosy.

All the probationary nurses had to attend the special course of lectures on Hygiene given at the Hospital, the results are set out in Appendix D. Nurses Training School Seychelles Government Hospital.

Recommendations for future work.

As soon as the economic condition of the colony warrants it, there should be a special Outlying Island Sanitary Inspector, who would be specially trained with regard to inspection of these islands. He would make periodical visits to all the Outlying Islands, give Ankylostomiasis treatment, search for hidden cases of leprosy, inspect the food supplies, water and latrines. This post would be suitable for a probationer who has a knowledge of Pharmacy and in addition holds certificate in First aid, Nursing, Hygiene and Sanitation. There is actually one probationer at the Pharmacy Department who is studying on the lines outlined above, and after another two years should be available for this post. An Inspector of this type would be able to detect cases of Beri-Beri, Malaria, infectious diseases, administer simple treatment, and report all serious cases so that a Medical Officer could be sent down to investigate if necessary.

I submitted in 1928 a recommendation that small cemeteries be acquired to relieve the congestion of Mont Fleury Cemetery, I again put forward this recommendation.

IV. Port Health Work and Administration.

In my annual report for 1929 I stated "up to the present no special ordinance has been passed to embody the provisions of the International Sanitary Convention, Treaty Series No. 22 (1928)".

This Colony has accepted the convention, and in the present pratique law of the colony Ord. No. 1 of 1916 some of its provisions are at variance with the convention.

Ord. No. 1 of 1916 Sec. 2 (7 c) when it defines "an infected Port" or "an infected place" means a port or place where a contagious or infectious disease existed at the time referred to in the context.

(9 c) Suspected vessel means "A vessel arriving at Port Victoria from an infected place".

Sec. 26 of Ordinance—A suspected vessel, the Health Officer shall put the vessel in quarantine and report his action to a committe of lay men, with the Chief Medical Officer as chairman appointed under Sec. 3 of the Ord.

The committee on considering the said report shall agree that the vessel is not a suspected or infected vessel, shall order that the vessel be immediately admitted to pratique, but in all other cases, the chairman shall as speedily as possible, submit the report of the Health Officer, and the advice of the Committee to the Governor, who may approve, or with the advice of the Executive Council disapprove of same.

The present situation is, that a B. I. Steamer coming from Bombay where there are always sporadic cases of small pox, plague or cholera is a suspected vessel, and as such is liable to be placed in quarantine even though the ship has a clean bill of health, and there is not a case of illness on board.

This at times causes friction and trouble with the shipping companies, passengers cannot land, and the shipping company is liable for all quarantine charges for labourers that discharge the cargo. The cost to the company is seldom less than £200 often more, as in addition to food for labourers, the latter draw their salaries during the period they are in quarantine. Naturally the shipping companies object to these charges especially when a ship, free from disease is placed in quarantine.

If the International Sanitary Convention, which we have accepted was put into law, and Ord. No. 1 of 1916 repealed, the above situation would not arise.

Due to the outbreak of malaria at Aldabra an ordinance is contemplated, and will be in force in 1931, that ships returning from Aldabra and Assumption shall not touch at any other islands of the Archipelago, and may at the discretion of the Sanitary Officer be fumigated in the roadstead of Port Victoria, to destroy any mosquitos which they may be suspected to harbour.

All cargo arriving in the colony from foreign ports is as a routine measure, in order to destroy mosquitos, fumigated in the Customs sheds prior to delivery to the public. Old gunny sacks, old clothes, second hand goods are sterilized at the steam disinfector on Hodoul Island.

The Port Office Department provides a Motor launch and a whale boat which are stationed at Praslin, for use of the A. M. O. in visiting the leper camp and islands which are under his jurisdiction.

Shipping.

The total tonnage of vessels which cleared for the Outlying islands in 1930 was 19,894.

The total tonnage of vessels that cleared from Port Victoria on Foreign voyages was 119,713 in 1930.

34 steamers, 12 sailing ships, 3 men of war, one auxiliary cruiser one steam tug called at Mahé in 1930 as follows :—

From—Bombay	...	13
Colombo	...	1
Mombasa	...	12
Mauritius	...	7
Madagascar	...	12
Beira	...	1
Réunion	...	1
Aden	...	1
Batavia	...	1
Tricomalie	...	1
Lorenço Marques	...	1
Total	...	51

In Quarantine	...	5
Free Pratique	...	33
Partial Pratique	...	13
Total	...	51

Deratisation of ships.

Five sailing vessels were deratised in 1930 and 111 dead rats were found as follows :—

S. V. Elisabetha	...	21
Halland	...	29
Wanetta	...	26
Zipporah	...	18
A. M. B. Charles Edouard	...	17
Total	...	111

In addition to the rats destroyed a quantity of minor vermin such as cockroaches were killed in some cases sackfuls of same were taken off the ships.

Number of passengers landed in Seychelles.

1st class	...	89
2nd class	...	51
Deck	...	485
		625 (456 males and 169 females).

Number of passengers who left Seychelles.

1st class	...	71
2nd class	...	98
Deck	...	200
		369 (254 males and 115 females).

The thanks of the department are again due to the League of Nations Health Organization, Eastern Bureau for the weekly cable of health of the neighbouring ports, these reports are of great assistance to the Port Medical Officer.

Quarantine Station Long Island.

The quarters on this island are furnished and are used by the Senior Civil Servant Officers of the Colony, and certain approved civilians as a holiday resort when not required for quarantine purpose. They are situated on a small island about 3 miles from the mainland.

The number of local residents that visited the station was 248 and paid fees amounting to Rs 54 for use of quarters. Visitors staying at quarantine were 65, Pic-nic 185 and 350 officers and sailors from Cruiser Karlsruhe visited the island.

The total cost for the maintenance of Quarantine Station in 1930 was Rs 1,450.97 this includes the extra cost for water supplied.

The water supply to the Quarantine Station is not in order, the pipes require to be cleaned and changed. Under Quarantine Regulations No. 94 of 1916 Sec. 12 "The Chief Medical Officer is responsible that the quarters are at all times ready for immediate occupation".

Due to want of water, a special water barge had to be chartered to supply water to the passengers and labourers in quarantine, the cost was heavy and is a charge to the vote of the department.

V Maternity and Child Welfare.

The Maternity Department is under the charge of a Matron holding in addition to a Registered Diploma as medical and surgical nurse, special qualifications in midwifery.

In addition to her other duties she has to deliver lectures and train the district midwives. Probationer midwives are trained for at least twelve months in practical work, attend a course of lectures in midwifery and child welfare, and a short course in general nursing and hygiene.

A probationer midwife when qualified is placed in one of the out districts of the Colony and is paid a retaining fee of Rs 12 per month, she is allowed private practice, and must attend free of cost all indigent and pauper cases of midwifery.

The old untrained midwife is now being replaced by a qualified midwife that has a fair average knowledge of her work in addition a knowledge of child welfare, and diseases of new born children.

None of these midwives speak English, and the course of lectures and instruction has to be given in Creole French by the Matron.

In Appendix table 111 of this report the figures are given of infant mortality under one and up to 5 years..

The Still-birth rate is high and is principally due to Syphilis.

All nurses in training at the Hospital in their 3rd year have to take out a special course of Midwifery lectures delivered by one of the staff and have to pass a Special examination in Anatomy, Physiology and Pathology, with regard to parturient patients, further they attend classes on Anti-Natal and Post-natal treatment.

There were admitted to the Maternity Department of the Hospital during the Year 268 patients an increase of 17 compared with 1929.

194 babies were born in the hospital including 4 cases of twin.

Primipariae	Male babies	36	
,,	Female babies	34	
		—	70
Multipariæ	Male babies	64	
,,	Female babies	60	
		—	124
		Total	194

14 babies were still-born compared with 12 in 1929 the causes of death being :—

Hereditary Syphilis	4	
Still-born on way to Hospital	2	
Due to Placenta Previa	3	
Hydrocephalus	2	
Premature Birth	3	(including twins)
Total	14	

There were 2 maternal deaths, one a case of concealed antepartum hæmorrhage, the other case admitted from outside also with ante-partum hæmorrhage, died shortly after admittance.

3 New born children died :—

1 died 10 minutes after delayed labour in a breach presentation.

1 died 3 days after birth from Hereditary Sphilis.

1 died 5 minutes after birth due to a difficult labour, child weighed 13½ lbs.

There were 5 cases of breach presentations, twins 4 cases, placenta previa 4 cases.

Forceps were applied 7 times, and chloroform given in 8 cases of confinement.

37 cases miscalculated the date of confinement and left the hospital to return later on.

One woman was confined en route to hospital, the confinement being terminated in the Maternity Department.

One mother and child sent in by the police from outside, as the mother had no proper place of abode.

One baby was admitted for hæmorrhage of cord, ten days after birth.

One female prisoner transferred from prison to Maternity for her confinement.

Curettage was performed 10 times for retained products of abortion and once for metorrhagia.

Ante-natal treatment was given to 18 cases for the following diseases :—

Hæmorrhage of teeth due to Epulis ...	1
Abdominal Colic	4
Elephantiasis and abscess of thigh ...	1
Hyperemesis	1
Ankylostomiasis	1
Accidental Hæmorrhage	1
Abdominal injury (horned by cow) ...	1
Pyrexia	1
Syphilis	1
Gonorrhœa	1
Total	13

9 patients were admitted to the Gynæcological Ward and treated for the following diseases :—

Metritis	3
Abscess of Bartholin Glaud	1
Metorrhagia	2
Pseudo Cyesis	1
Carcinoma of Os	1
Nephritis	1
	9

Cases treated Extern Dept.	
Gynæcological ...	26
„ „ Anti-natal	11
Total	46

The Maternity has 18 beds in 3rd Class, 6 in 2nd and 2 First Class, the fees are given under Seychelles Hospital.

The training school is invaluable for the training of district nurses as midwives, and the small "Maternity Home" with a few beds, instituted by the late Sir Walter Davidson, K. C. M. G. when he was governor, is now an important department in the Seychelles Hospital, and fills an important place in the needs of the colony.

The fees paid by patients to the Maternity Department during the year amounted to Rs 1,666.25.

VI Hospital, Dispensaries and Venereal Clinic.

Seychelles Hospital.

The primary object of the Seychelles Hospital as laid down in Ordinance No. 20 of 1899, shall be to provide hospital accommodation and treatment for such of the poorer classes, as shall be unable to secure proper medical treatment in their own homes.

After providing for the needs of the poorer classes, accommodation in the hospital is provided, as far as possible, at a fair and moderate charge, for persons able and willing to pay for same.

Accommodation for the poorer classes is provided in the 3rd class male and female wards this accommodation is free for persons admitted under Sec. 165 of the Hospital Regulations, in other cases a charge of 50 cents (or 9d) is made daily. In this class operations and electro-medical treatment is free, and there are no extra charges.

As a rule in these wards especially on the male side, the beds are nearly always occupied. Attached to this section there is a special children's ward which is also free.

In the Second class wards a charge of Rs 1.50 per diem is made (or 2/3) this includes ordinary medicines and ordinary medical attendance and nursing ; but does not include special appliances, dressings and drugs that are not used in the ordinary practice of the Hospital. The latter when ordered are charged at cost in the patients' hospital account.

For Major operations on inhabitants of the colony, the operating Surgeon can charge a reasonable fee, and in the second class this does not, except in very exceptional cases exceed Rs 30.

The First class wards have two scale of fees :—1st Class A. Rs 5 (or 7/6) per diem, 1st Class B. Rs 3 per diem (or 4/6) the difference is the cost of food.

1st class A. are supplied with European food, which includes bacon and eggs for breafast, preserves and cakes at the afternoon tea, and an extra course at lunch and dinner.

1st class B. gets the same diet as 2nd class, the difference in cost being due that the 1st class B. has a single ward, whilst the 2nd class patient is accommodated in a ward that holds six beds.

In First class there are no other charges, as in 2nd class the daily fee covers ordinary medicines, medical attendance and nursing, special appliances, drugs &c. are charged at cost in the patients' hospital account.

With regard to Major operations on the inhabitants of the colony, a rather higher scale is charged, the usual fee does not exceed Rs 60, at times this is exceeded, due to difficulty of operation, social and financial position of patient, but the maximum does not, as a rule, exceed Rs 100 for inhabitants of the colony.

The only fees charged in a separate account to the patient are the operating fees which are paid directly to the operating surgeon. All other hospital costs, special drugs &c. are paid directly to Government.

Government Officials drawing pensionable emoluments of less than Rs 1,500 per annum are entitled to free treatment in the 2nd class wards.

Free treatment in the 3rd class wards is provided for Police Constables, Prison Guards, Messengers, Port Office Boatmen, Postmen, Government House Servants, Labourers in any department of the Government or the Local Boards, all other Government Officials admitted to the Hospital pay only half fees in 1st and 2nd class wards, operations being carried out free.

The 1st and 2nd class accommodotion in the Hospital is ample for the needs of the colony, as it is rare to have all the beds in these classes fully occupied.

With regard to the Maternity Department a different scale of charges is made.

In 3rd class a charge of Rs 5 is made, and this covers all hospital charges ante and post-natal treatment, operative interference &c., and there is no time limit as to period covered by this minimum fee.

If this fee was not imposed the ward would be overcrowded, and even at present the 18 beds in this ward are taxed up to their limit at times;

Poor and indegent patients are always admitted free to the Maternity ward.

A fee of Rs 15 is charged in 2nd class, which covers all costs for a period of 15 days, includes the services of a qualified midwife nursing. medical attendance &c. If instrumental interference is necessary a fee not exceeding Rs 20 may be charged, as a rule patients in this class rarely pay for application of forces.

First class in the Maternity includes two classes, 1st class A pays Rs 50 which covers all costs for 15 days, 1st class B pays Rs 30 which also covers all costs for 15 days.

In case of First class patients a fee not exceeding Rs 50 may be charged for the confinement by the Medical Officer that attends same.

With regard to X Ray, Diathermy, Ultra violet Ray treatment, this is carried out by the Resident Surgeon, who fixes his fees beforehand as all the installation and apparatus are his private property.

In case of 3rd class patients no fees are charged for X Ray examination as there is a subvention of Rs 600 per annum, allowed to the Resident Surgeon for this service.

There are three outstanding events in the Hospilal for the year under review :—

1st There is a grant from Colonial Development Fund £400 for the building of a tubercular ward in the Hospital grounds, I have repeatedly called attention to the urgent need of a special ward for the treatment of tubercular cases. In 1931 the building will be erected.

In addition there was also voted from the Colonial Development Fund the sum of £386 for the purchase of instruments and equipment of laboratory and operating theatre, as well as additional beds, badly required in the wards.

2nd The building in the hospital grounds of quarters for the Resident Surgeon is another important event. This will allow the wards in the hospital actually occupied by the Resident Surgeon to revert to their original purpose, viz ;—a 2nd class Female ward in the upper verandah, as well as quarters for the nurses in the hospital. I am pleased to report that after all these years a "Nurses Home" has at last been provided. I have drawn attention for several years to the marked necessity of providing this accommodation.

3rd Instead of depending on the intermittant supply of water (which often failed) to the hospital, from the Mont Fleuri source, during the year a new water supply has been laid on which supplies at a good pressure, ample and sufficient water from the mountains of Hermitage.

At Hermitage in the hills 132 feet above sea level, and 81 feet above the level of the Hospital there has been constructed a settling tank of 810 gallons connected to the hospital by 1,384 feet of 3", 2½" and 2" cast iron, and galvanized iron piping. The discharge from the tank is 13½ gallons per minute, which is in excess of the hospital requirements, the excess is utilized in an ornamental fountain where a jet of water plays daily at the entrance of the Hospital.

Extern Dressing Room Hospital.

During the year there were 1,177 cases treated in the Extern Dressing Room. Most of the cases were for minor injuries and wounds, fees amounting to Rs 59.60 were paid for the dressings supplied, which are supplied at cost to those able to pay and free to indigent patients.

X Ray and Electro Medical Department.

The advantages that this department offers to the inhabitants of this Colony are daily becoming more evident. Many skiagrams have now been taken which definitely prove the necessity of such a Department in a modern hospital for the accurate dignosis and efficient treatment of cases of injury and disease.

By the end of 1930 the Resident Surgeon had carried out 162 X Ray examinations, both radioscopic and radiographic, of which 65 were on paupers and 3rd class patients in the Hospital.

A new X Ray tube, a Philips Metalix DS, water-cooled type, which is more powerful than the first one, is now in use, the first tube being kept by as a spare one.

The other forms of electro-medical therapy carried out in this Department include Diathermy and Ultra-Violet Irradiation with the Quartz mercury-vapour lamp.

Diathermy treatment was applied successfully in several cases of subacute and chronic inflamation of internal organs, in various forms of arthritis, especially those of gonococal origin and in gouty and rheumatic conditions, all of which are so prevalent here.

Surgically the Diathermy apparatus which is a powerful one was used on a few occasions for the destruction of various growths.

Local applications of Ultra-Violet rays was found to promote granulation and healing of those indolent non-specific ulcers which are frequently met with here.

General Ultra-Violet irradiation was also given to patients after surgical operations, and in all those thus treated the period of post-operative convalescence was considerably shortened.

During the year a good many Hospital patients of the poorer classes received free Diathermy and Ultra-Violet Ray treatment.

Admissions during 1930.

880 patients were admitted consisting of (368 males and 553 females). There were in addition in the Hospital on the 1st January 1930 41 patients (21 males and 20 females) making a total of 921 patients for 1930.

257 males and 437 females were discharged as cured.
64 males and 70 females were discharged as relieved.
20 males and 35 females were discharged as unrelieved.
There died 15 males and 8 females in the Hospital.

Surgical Operations performed in Seychelles Government Hospital.

Operations performed during the year 1930 numbered 376 of which 372 were cured, 1 improved and 3 died.

List of Operations with remarks thereon.

Operation.	No.	Cured.	Improved.	Died.	Remarks.
GENERAL ABDOMINAL OPERATIONS.					 33
For Hernia ...	9	9	..	...	
Strangulated hernia ...	3	3	...	...	
Acute Appendicitis ...	2	2	...	...	
Chronic „ ...	17	17	...	...	
Laparatomy (for general peritonitis)...	2	...	...	2	One case of perforated duodenal ulcer seen 28 hours after perforation and one case of ilio cœcal intussusception and gangrene.
GYNAECOLOGICAL OPERATIONS.					 34
Curettage ...	11	11	...	...	
Salpingo-Pophorectomy	8	8	...	...	
Hysterectomy ...	14	14	...	...	
For Bartholinians' abscess..	1	1	...	...	
GENITO URINARY OPERATIONS.					 10
Circumcision ...	3	3	...	...	In adults.
External Urethrotomy.	3	3	...	...	
Radical cure for Hydrocele...	2	2	...	...	
Orchidectomy ...	2	2	...	...	
AMPUTATIONS.					 9
Major ...	2	1	...	1	Diabetic gangrene of leg.
Minor ...	7	7	...	...	
OPERATIONS FOR REMOVAL OF NEW GROWTH					 12
Malignant ...	3	2	1	...	
Benign ...	9	9	...	...	
MISCELLANEOUS OPERATIONS.					 278
Unclassified ...	221	221	...	...	
Rib Resection (Empyema)...	1	1	...	...	
Rectal Prolapse ...	1	1	...	...	
Fistula in Ano ...	4	4	...	...	
Liver abscess ..	1	1	...	...	
For Fractures and Dislocations...	19	19	...	...	
Hæmorrhoids ...	8	8	...	...	
Cataract extraction ...	2	2	...	...	
Tonsils and Adenoids..	12	12	...	...	
Osteotomy ...	3	3	...	...	
Arthrotomy ...	1	1	...	...	
Plastic ...	5	5	...	...	
Total	376	372	1	3	.. 376

Deaths in Hospital during 1930.

There were during the year 21 deaths in the General Wards of the Hospital as follows :—

Pneumonia	...	2
Beri-Beri	...	2
Amœbic Dysentery	...	1
Malignant Endocarditis	...	3
Cerebral Abscess	...	1
Pleurisy and Myocarditis	...	1
Tetanus	...	2
Peritonitis	...	2 (1 due to perforated duodenal ulcer).
Disseminated Tuberculosis	...	2
Intussusception	...	1
Septicæmia	...	1 (following shark bite).
Diabetes Mellitus	...	1
Senile Decay	...	1
Cerebral Hæmorrhage	...	1
Total	...	21

Summary of Dental Treatment given to Government Officials employees &c. in the Hospital during 1930.

Total number of extractions	...	232
,, ,, with Local Anæsthetic	...	152
,, ,, without an ,, ...	...	52
,, ,, with Chloroform ...	..	28
,, Fillings ...	...	39
,, Dentures at reduced cost ...	...	3

VII. Prisons and Asylums.

During the year ending 1930 there were 2,843 prosecutions for the recovery of taxes. The offenders were chiefly of the labouring classes who do not make the slightest effort to pay the light tax levied on them until actually summoned.

A good many of the labouring class prefer to work out their tax in prison ; this may be attributed to the marked fall in the price of local produce, with consequent want of employment.

The Criminal Records compared with 1929 show a decrease of 207 cases, and 199 persons charged, during the year 1,298 cases and 1,725 persons were brought before the Criminal Courts.

The cases were distributed as follows :—

	No. of cases	No. of Persons
Supreme Court...	122	136
Police Court	896	1,167
J. P. South Mahé	163	233
J. P. Praslin	117	189

No person was charged with a capital offence, and there were no other charges of homicide.

The following were the principal offences :—wounding 9, aggravated larceny 2, Simple larceny and unlawful possession 56, Embezzlement and swindling 8.

Being an agricultural colony principally devoted to coconut planting prædial larceny is one of the commonest offences.

In the police court 51 persons were convicted for plundering, and 4 for unlawful possession.

The convictions for drunkenness were 242 a decrease of 50 compared with 1929. The economic situation combined with the diminution of bacca licenses and closing of bacca shops in Victoria with subsequent decrease in bacca drinking may account for this result.

There was a marked increase in cases of alimony applications for maintenance of wives and children, 29 petitions in which orders were made in 19 cases, only 6 orders were made in 1929.

The statistics for the year may be considered satisfactory, as they show an absence of serious crime, and a decrease in the number of persons convicted for minor offences.

It is gratifying to find there was a decrease of 50 in the number of convictions for drunkenness, as the question of bacca drinking, and drunkenness arising from same, had given rise to some anxiety.

It is intended that a Juvenile Offenders Bill will become law, and that it will have the good effect in persuading parents who are not conscientious with regard to the morals and upbringing of their children, to force them to amend their ways, and take steps to bring up their children properly.

There are a number of disorderly boys, and the police records show a slow but steady increase in the number of convictions, of juvenile offenders before the court.

As I pointed out in my report for 1929 the central prison does not afford facilities for the upbringing, education and supervision of juvenile offenders of this class.

It is not a wise procedure to confine juvenile offenders in the same building with hardened and old time offenders, especially in this present prison which has association cells, their being only a few single cells.

Victoria Prison.

No alterations were made in the prison building during the year.

My recommendations in the annual report of 1928 and 1929 that there should be a cell in a secluded position in the prison for those about to undergo capital punishment, is again brought forward this year.

The prison at Victoria is administered as a Convict Prison, and as a Local Prison, all the prisoners sleeping in association cells, the large cells can accommodate as many as 30 prisoners.

The sanitary arrangements of the prison are satisfactory, rations are adequate and of good quality. At times prisoners complain of the maize rations, as they are principally rice eaters, but when they get accustomed to the maize diet they seem to thrive on it.

The general health was satisfactory during the year, there was no outbreak of any serious disease or epidemic.

A sum of Rs 16,008 was provided in Estimates of the Colony for the maintenance of prison for the year 1930, and the actual expenditure was Rs 12,918.82.

Prisoners were regulary employed on various industries such as carpentery and the making of mattresses, blinds, baskets, &c., for the Government officials and the total revenue derived from those industries was Rs 622.67.

Those who had no special qualification for any of the various prison industries were regularly employed on out door work. A gang is specially detailed to work on the Government House ground and is usually employed for cleaning purposes, the average daily number of men thus employed is 9, another daily average of 8 men are detailed to the Public Works Department and are employed for miscellaneous work. Apart from those two gangs, prisoners are also regularly detailed to several other Government Departments to do the cleaning of the offices &c., or in the case of the Agricultural Department to clean the public gardens and squares.

During the year 357 males and 90 females were sentenced to imprisonment and on the 31st December the number of prisoners was 48, including 6 females.

71 males and 4 females were imprisoned for criminal offences as compared with 47 males and 13 females in 1929. 286 males and 86 females were imprisoned for non-payment of fines and costs and non payment of taxes as compared with 234 males and 58 females in 1929.

Of the 48 prisoners who were in Prison on the 31st December 14 were under detention with unexpired term of 1 year to 5 years, 6 of 6 months to 1 year and 28 of less than 6 months.

The maximum number of prisoners who were in prison on any day was 49 and the minimum 41, the daily average being 46.

The conduct of prisoners was fairly good throughout the year, no breach of Prison discipline was recorded. The following punishment were inflicted for the various offences committed by prisoners during the year :—28 were sentenced to Solitary confinement with forfeiture of 1/3 ratio is, 126 were sentenced to Penal Diet, 15 were reprimanded and further 96 cases who were under the Mark System Regulations were deprived of part of their marks.

Owing to the absence of special accommodation in the Prison for serious cases of illness, 5 men and one woman had to be admitted to the Seychelles Government Hospital. Apart from these cases, prisoners who are slightly ill, are kept in Prison, where a small infirmary is available for them ; they are visited daily by the Chief Medical Officer.

The daily average of prisoners thus treated was one.

Sixteen long sentence prisoners were discharged on licence under the Mark System Regulations during the year and none of them was reconvicted for an indictable offence before the expiration of the Licence. Those 16 prisoners mentioned above received on their discharge from Prison various sums as Gratuity, for satisfactory conduct amounting to Rs 60.

Lunatic Asylum South Mahé.

ASYLUM, EXPENDITURE IN 1930.

	Rs	cts.
Maintenance	4,981	86
Upkeep of Asylum and Grounds	136	90
Total Expenditure ...	5,118	76
Less amount paid by paying patients ...	948	99
	4,169	77
Salaries of Attendants and Cook	3,585	96
Total cost of Asylum	7,755	73
The total amount voted for Asylum was ...	9,870	00
Balance in favour on 31st December 1930 ...	2,114	27

Table showing the Admissions, re-admissions, Discharges and Deaths during the year ending 31st December 1930.

	Males.	Females	Total.	Males.	Females	Total.
In Asylum including those out on trial ..	12	7	19	...	...	...
Cases admitted during 1930.						
First Admission	3	2	5	...	...	...
Not first Admission	1	1	2	...	...	...
Total cases under care during year.	16	10	26	16	10	26
Cases discharged during 1930.						
Recovered	1	...	1	...	...	...
Relieved	2	1	3	...	...	...
Not improved	...	...	...	...	...	...
Died	2	...	2	...	...	...
Total cases discharged and died during the year	5	1	6	5	1	6
Remaining in Asylum.						
31st December 1930, including those out on trial	...	...	...	11	9	20

Leper Asylum.

At the end of December the male lepers were transferred from the leper camp on a small island near Victoria to the new Leper Asylum situated at Round Island, in Bay Ste Anne Praslin. The latter island has an area of about 54 acres. The quarters for the female lepers in the new Asylum were not built, so the females remain on in the old camp, until the buildings are erected ; this means extra expenditure for surveillance and administration. It would be a marked economy to have all the patients in the one Asylum, under a single administration and control. Seeing that the money in the Estimates of 1930 has been provided for the female quarters, I trust that in 1931 the necessary buildings will be provided.

I have under Leprosy Campaign given further details with regard to the new Asylum that is provided for the lepers.

The Assistant Medical Officer stationed at Praslin is the officer in charge, and the island which is about 1½ miles from his quarters is reached by a small motor launch specially provided for this service.

The huts for the lepers are double huts, nearly 1000 cubic feet is provided for each leper in addition to a verandah. Huts are built of "Poilite" with corrugated iron roofs. This new Leper Asylum was formerly a leper camp, but in 1920 (at the time there were only 6 inmates) the camp was transferred to a small island near Victoria.

Reference to the Annual Medical Report of 1922 a census was taken of all lepers in the Colony and the number was found to be 33. This number was I consider under estimated. It was only in 1922 that it was considered necessary to appoint two assistant Sanitary Inspectors to visit and supervise the lepers.

The number of known and certified lepers at the end of 1930 was 71 an increase of 38 patients in eight years, and I am of opinion that there are still many cases of leprosy undiagnosed, as patients and their families hide the disease as it is considered in the Colony as a social taint.

As I have already stated in this report a new appointment was made in Praslin of an Assistant Sanitary Inspector, this appointment was necessary as there was discovered during the year in Praslin and La Digue 2 male and 2 female lepers.

Praslin Island has a high percentage of leprosy there were 13 segregated lepers on that island (not including Praslin lepers in the Asylum) at the end of 1930 and 3 at La Digue a total of 16 lepers in a population of under 5000, that is over 3 per thousand of the population of these two islands have contracted the disease.

Over 50 years ago an island called "Curieuse" off the coast of Praslin was the first leper establishment in the colony, and I understand that the district of Praslin that border on the coast next to Curieuse have a higher incidence of leprosy than other parts of the island.

Under Leprosy Campaign more detailed information is given on this important subject, the cost of maintenance of lepers for 1930 was Rs 7,226.66 the estimates being exceeded by Rs 266.66 Due to the increase of lepers and new admittances to the leper camp this sum will be exceeded in 1931.

Recommendations.

I strongly recommend that a legal enactment be passed that all guardians who accept responsibility for the supervision of segregated lepers and sign a "Bond" guaranteeing that the conditions laid down in the Regulations are complied with, be subject to some form of punishment if they fail to carry out their duties. There is no compulsion for any person to undertake this responsibility, and as there is no penalty if the guardian neglects to carry out the conditions laid down for segregated lepers, the position is that lepers wander about the island, enter shops, and mix with the inhabitants, segregation in many cases being only a matter of form.

Fiennes Institute.

This Institution is situated at Plaisance about 2 miles from Victoria, it has accommodation for about 130 paupers; the Resident Surgeon who is also the Medical Superintendent of the Institute visits there three times a week and at other times when necessary.

The daily average number of patients in 1930 was 69.

There were 24 deaths during the year, the main causes of death being Senile Decay and Cardiac diseases.

Rs 8,990.21 were spent during the year for the upkeep of the Institution, this represents a saving of Rs 1,509.79 on the amount voted for the year.

The number of patients admitted during the year was 62 and the number discharged 39.

The health of the inmates considering their advanced age was fair throughout the year.

The Industries which include gardening, mat, basket and broom making, maize cleaning &c., realised Rs 308.88. The cost of these industries was Rs 195.93 the difference is handed over to the paupers as a bonus.

Cottage Hospital Praslin.

This hospital is reported on by the Assistant Medical Officer in his report found as an Appendix.

VII. Meteorology.

This has been supplied by the Port Officer and is given in tabular form in Table IV., it shows Temperature, Rainfall, Winds and a column for total deaths in each month.

This island (Mahé) is in Lat. 4 ° 37'S. and although situated close to the Equator, experiences very little of the hot and oppressing weather common to equatorial regions; the surrounding sea ensuring the uniformity and equibility of its climate.

The South East monsoon is more pleasant with its steady, cooler, and drier wind than the North West monsoon with its alternating variable winds, calms, and resulting humidity.

The hottest months are however at the change of the monsoons when the daily mean of maxima temperatures is 85oF. and that of minima 78oF. During the South East monsoon the mean daily is 81oF. whereas the absolute minimum recorded is 68oF. at sea level.

Relative humidity is 76o/o at its minimum during the S. E. and 81o/o at its maximum during the N. W. monsoon extremes recorded being 59o/o and 93o/o respectively.

Temperatures ot stations situated at 1500 feet or more above sea level show a decrease of approximately 4 to 5 degrees F.

IX Scientific.

The result of the investigation made at Aldabra on Malaria, and at Coetivy on Beri-Beri are attached as Appendices to this report.

Thanks to the free grant from the Colonial Development Fund, the Laboratory in the Hospital is now provided with an incubator, a special Research Microscope with dark ground illumination, a small still, so that research work can be carried out by the staff.

I trust that the trained bacteriologist may soon arrive in the colony as research work is necessary with regard to "Decoquée" which is always prevalent in the outlying island. The outbreak of Malaria at Aldabra is another problem, as to whether the mosquitos has been lately introduced or is indigenous.

In the laboratory at the hospital fæces are systematically examined for the detection of Ankylostomiasis ova, several hundred specimens having been examined during the year.

The Mosquitos sent to Dr Staunton C.M.G. from Aldabra were identified as follows :—

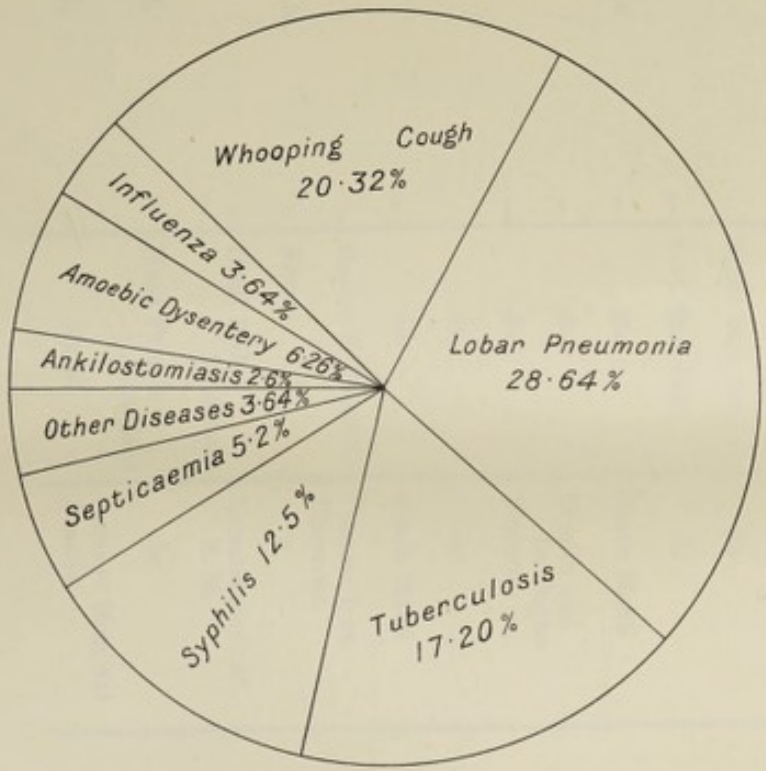
Anopheles Gambiæ
Aedes Aegypti
Aedes Fryeri
Culex Simpsoni.

JOHN THOS : BRADLEY,
Chief Medical Officer.

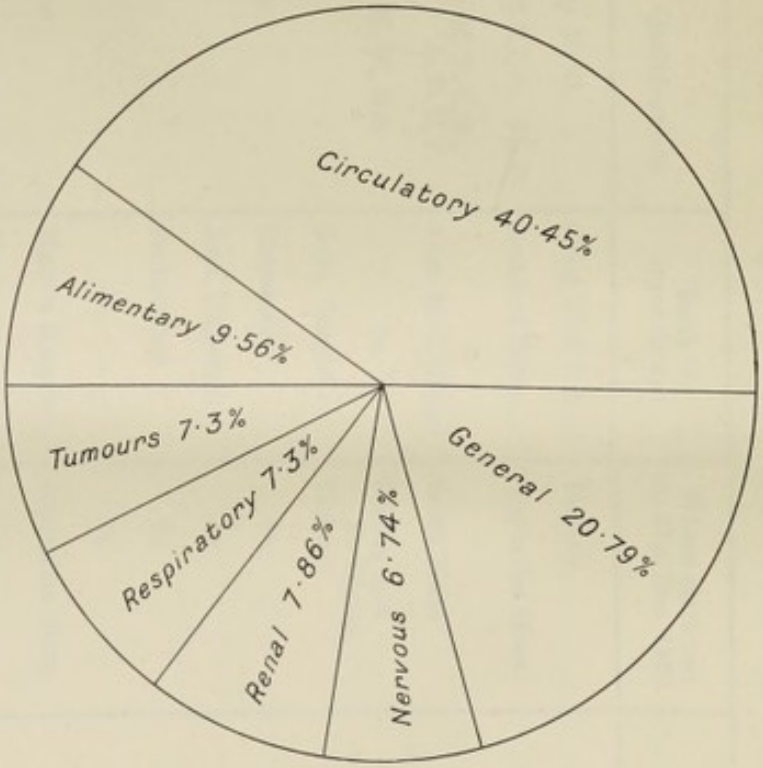
TOTAL DEATHS IN 1929 = 495

ANNEXURE

INFECTIVE DISEASES
192



SYSTEMIC DISEASES
178



SENILE DECAY ACCIDENTS & ILL DEFINED CAUSES = 125

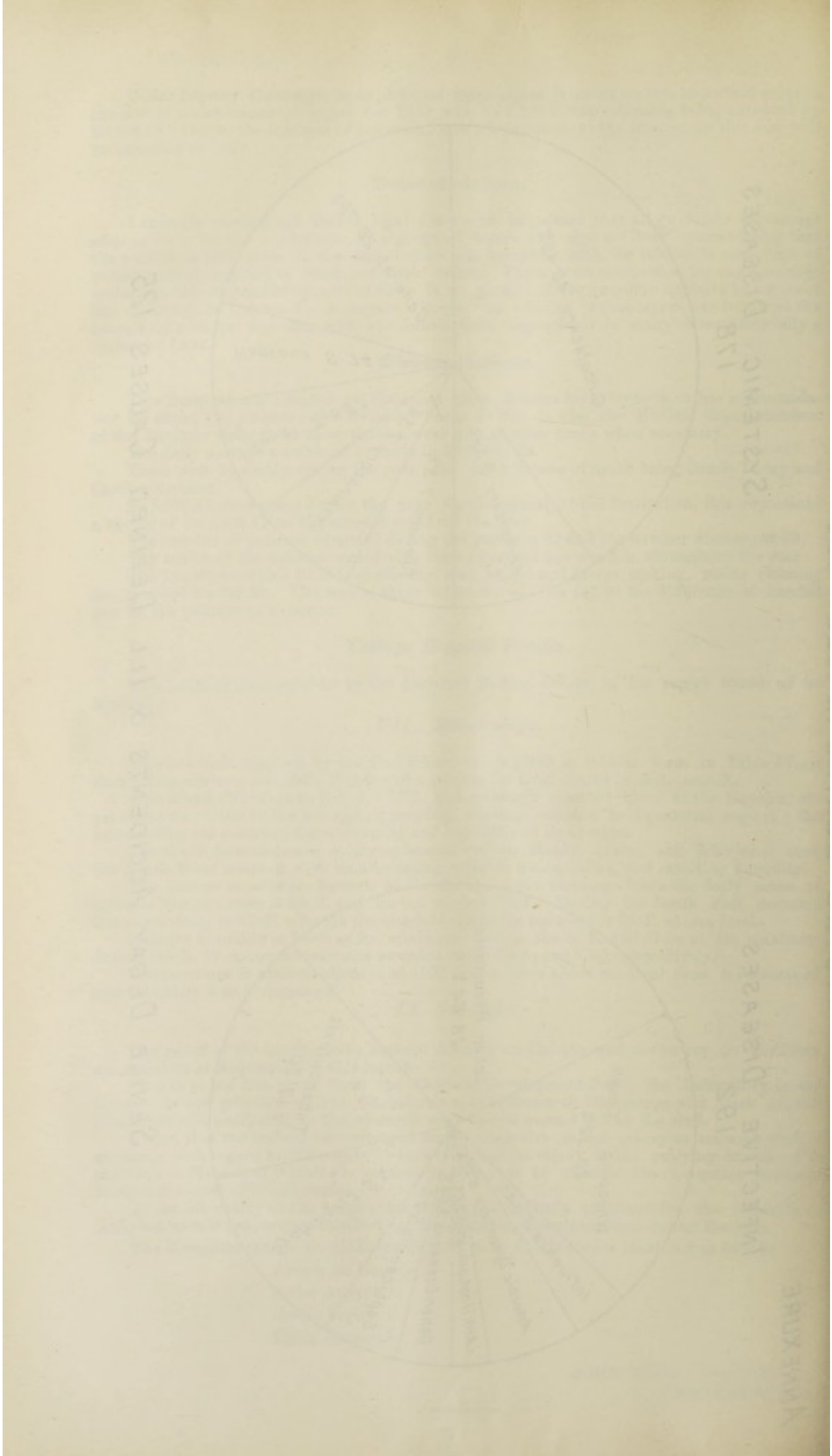


TABLE I.

Return showing the Medical Staff and the principal members of the subordinate staff

Names and Qualifications.	Rank of appointment.	Where stationed On 31st Dec. 1930.	Remarks
John T. Bradley M. D. ...	Chief Med. Officer	Victoria	
E. M. Lanier M.R.C.S., M. D.	Resident Surgeon	Seychelles Hosp.	
P. J. Gonsalves M. R. C. S., L. R. C. P. ..	Asst. Med. Officer	South Mahé	
K. C. Mathew M. B., B.S. ...	do.	Praslin and La Digue	
A. Murray ...	Govt. Dentist	Victoria	
J. E. Houareau ...	Dispenser	do	
E. Mathiot ..	Asst. Dispenser	do	
J. Calais ...	Probationer	do	
H. Barallon ..	do.	do	
Sister Catherine ..	Matron Hospital	Seychelles Hosp.	
Sister Yvonne ...	Nurse	do	
„ Laure ...	do.	do	
„ Emmanuel ...	do.	do	
A. Grandcourt D. N. & M. S.R.N. ...	Matron Maternity Dept.	do do	
J. Faure C. M. ...	Midwife	do	
Seven probationary nurses ..	Probationers	do	
F. Westergreen ...	Sanitary Inspector	Victoria	
J. Hickey ...	Night San. Insp.	do	
A. Pool ...	Asst. San. Insp.	do	
M. Grandcourt ...	do.	South Mahé	
V. Soleil ...	do.	Praslin and La Digue	
D. Morel ...	do.	Victoria	
E. Collie ...	do.	do	
M. Payet ...	do.	South Mahé	
T. Horner ...	Master F. Institute	Fiennes Inst. Plaisance	
G. Hodoul C.M. ..	Nurse do.	„	
E. St Ange ...	Head Male Attendant	Lunatic Asylum S. M.	
V. Payet C.M. ..	Head Female Attendant	do	
C. Collie C.M. ...	Nurse	Cottage Hospital Praslin	

TABLE II.

	Males.	Females.	Total.
Estimated Population on 31st December 1929 ...	13,743	13,845	27,588
Births during 1930 ...	409	381	790
Arrival during 1930 ...	456	167	623
Decrease by deaths ...	185	210	395
Decrease by departures ...	234	155	389
Estimated population on 31st December 1930 ...	14,189	14,028	28,217
Net increase during 1930 ...	446	183	629

Birth rate during 1930 per thousand 27.99
Death rate „ „ „ „ 13·99

TABLE III.

AGES AT WHICH DEATH HAS OCCURRED.

Under 1 year		1 to 5 years		6 to 70 years		70 to 100 years		Over 100 years		Total	
M	F	M	F	M	F	M	F	M	F	M	F
12	11	42	54	85	91	45	54	1	...	185	210
23		96		176		99		1		395	

TABLE IV.

Meteorological Returns for 1930.

1930	Temperature							Rainfall		Winds		Deaths	Remarks.
Months	*Barometer Pressure in inch	Solar Maximum	Minimum on grass	Shade Maximum	Shade Minimum	Range	Mean	Amount in Inches	Relative Humidity	Directions of Wind	Average force	Deaths per month	
January ...	29.835	138		83.4	77.1	6.3	80.2	6.18	82	NW.	7.5	57	
February ...	.861	131		88.7	77.2	11.5	82.9	8.85	76	NW.	6.5	29	
March ...	.821	137		85.2	78.2	7.0	81.7	7.19	73	NW.	7.1	38	
April ...	.798	139		86.1	78.2	7.9	82.1	6.55	73	NW.	6.4	27	
May ...	.863	136		80.6	77.8	12.8	79.2	3.51	73	ESE.	6.4	26	
June ...	.886	122		82.4	76.3	6.1	79.3	3.62	76	ESE.	12.0	32	
July ...	.908	129		81.5	75.1	6.4	78.3	3.42	80	ESE.	12.8	43	
August ...	.902	127		80.1	75.2	4.9	77.6	1.87	78	ESE.	21.8	35	
September ...	.906	134		82.1	76.1	6.0	79.1	8.68	76	ESE.	13.7	23	
October ...	.791	134		83.0	76.5	6.5	79.7	2.11	73	ESE.	10.3	31	
November ...	.783	132		78.4	75.6	2.8	77.0	20.59	80	NW.	8.0	28	
December ...	.870	134		82.7	75.8	6.9	79.2	13.25	80	NW.	7.2	26	

TABLE V.

Return of Diseases and Deaths in 1930 at the Seychelles Hospital.

Diseases.	Remaining in Hospital at end of 1929.	Yearly Total. Admissions.	Yearly Total. Deaths.	Total Cases Treated	Remaining in Hospital at end of 1930.	Remarks.
EPIDEMIC, ENDEMIC & INFECTIOUS DISEASES.						
Dysentery Amœbic ...	...	7	1	7	...	
Erysipelas ...	...	2	...	2	...	
Gumma ...	...	1	...	1	...	
Influenza ...	1	19	...	20	...	
Malaria Imported ...	...	1	...	1	...	
Post Malarial Asthenia ...	...	1	...	1	...	
Septicæmia ...	...	2	1	2	...	
Syphilis ...	2	33	...	35	2	
Tetanus ...	...	4	2	4	...	
Tuberculosis ...	2	11	2	13	...	
Venereal Diseases ...	...	15	...	15	1	
GENERAL DISEASES NOT MENTIONED ABOVE.						
Anæmia ...	...	2	...	2	...	
Ante Natal Treatment...	...	1	...	1	...	
Alcoholism ...	...	3	...	3	1	
Beri-Beri ...	8	11	2	19	...	
Carcinoma ...	...	5	...	5	...	
Diabetes ...	...	4	1	4	...	
Lipoma ...	...	1	...	1	...	
Rheumatism ...	...	5	...	5	...	
Rheumatic fever ...	1	...	...	1	...	
AFFECTIONS OF THE NERVOUS SYSTEM AND ORGANS OF SENSES.						
Cataract ...	...	2	...	2	..	
Concussions Cerebral ...	...	3	...	3	...	
Conjunctivitis ...	...	6	...	6	...	
Delirium Acute ...	...	1	...	1	...	
Ear Ache ...	...	3	...	3	...	
Epistaxis ...	1	...	...	1	...	
Hemiplegia ...	...	1	...	1	...	
Hysteria ...	1	1	...	2	...	
Lumbago ...	...	1	...	1	...	
Melancholia ...	...	1	...	1	...	
Neuritis ...	...	1	..	1	...	
Neurotic ...	...	8	...	8	...	
Nervous Break down ...	...	1	...	1	...	
Otorrhœa ...	...	5	...	5	...	
Paraplegia ...	...	4	...	4	...	
Sciatica ...	...	1	...	1	1	
AFFECTIONS OF THE CIRCULATORY SYSTEM.						
Arthritis ...	...	10	...	10	...	
Art. Rheumatism ...	...	3	...	3	...	
Cardiac disease ...	...	3	1	3	...	
Catalepsy ...	...	1	...	1	...	
Cerebral Thrombosis ...	...	1	...	1	...	
,, Hæmorrhage ...	...	4	1	4	...	
Endocarditis ...	...	12	1	12	...	
Gout ...	1	...	...	1	...	
Hematemesis ...	...	1	...	1	...	
	17	232	12	219	5	

Return of Diseases and Deaths in 1930 at the Seychelles Hospital.

Diseases.	Remaining in Hospital at end of 1929.	Yearly Total		Total Cases Treated	Remaining in Hospital at end of 1930.	Remarks
		Admissions	Deaths			
Brought forward ...	17	202	12	219	5	
AFFECTIONS OF THE CIRCULATORY SYSTEM.—Ctd.						
Hemoptysis	...	1	...	1	...	
Myocarditis	...	8	1	8	...	
Myelitis	...	1	...	1	...	
AFFECTIONS OF THE RESPIRATORY SYSTEM.						
Asthma	...	20	...	20	...	
Bronchitis	...	13	...	13	...	
Empyema	...	2	...	2	...	
Fibrosis of Lung	1	...	...	1	...	
Pneumonia	1	3	2	4	...	
Pleurisy	...	6	1	6	...	
DISEASES OF THE DIGESTIVE SYSTEM.						
Ankylostomiasis	4	5	...	9	...	
Appendicitis	...	17	...	17	...	
Amœbiasis	...	1	...	1	1	
Colic	...	9	...	9	1	
Cirrhosis of Liver	...	1	...	1	...	
Duodenal Ulcer	...	1	1	1	...	
Enteritis	...	3	...	3	...	
Gastritis	...	4	...	4	...	
Gastro Enteritis	...	7	...	7	...	
Hæmorrhoids	...	7	...	7	...	
Hernia	...	9	...	9	...	
„ Strangulated ...	1	4	...	5	...	
Hepatitis	...	9	...	9	1	
Indigestion	...	3	...	3	...	
Intussusception	...	1	1	1	..	
Prolapse of Recti	1	1	...	2	...	
Peritonitis	...	3	1	3	...	
Tonsillitis	...	5	...	5	...	
DISEASES OF THE GENITO URINARY SYSTEM.						
Adenitis	...	9	...	9	1	
Albuminuria	...	1	...	1	...	
Cystitis	...	3	...	3	...	
Circumcission	...	1	...	1	...	
Endometritis	...	2	...	2	...	
Epididymitis	...	2	...	2	...	
Fistula	...	3	...	3	...	
Funiculitis	...	1	...	1	...	
Fibroid Uterine	...	15	...	15	1	
Gall Stone	...	1	...	1	...	
Hydrocele	...	1	...	1	...	
Hematuria	...	2	...	2	...	
Mastitis	...	2	...	2	...	
Nephritis	...	5	...	5	...	
Ovaritis	...	7	...	7	...	
Orchitis	...	9	...	9	1	
Carried forward ...	25	410	19	435	11	

Return of Diseases and Deaths in 1930 at the Seychelles Hospital.

Diseases.	Remaining in Hospital at end of 1929.	Yearly Total. Admissions	Yearly Total. Deaths	Total Cases Treated.	Remaining in Hospital at end of 1930.	Remarks.
Brought forward ...	25	410	19	435	11	
DISEASES OF THE GENITO URINARY SYSTEM.—Ctd.						
Ovarian Cyst	...	1	...	1	..	
Prostatitis	...	1	...	1	...	
Pyelitis	...	1	...	1	...	
Retention of Urine	...	8	...	8	...	
Salpingitis	...	4	...	4	1	
Stricture of Urethral	...	6	...	6	...	
Uræmia	...	1	...	1	...	
Urethritis	...	1	...	1	...	
Vaginitis	...	3	...	3	...	
Vaginal Cyst	...	1	...	1	...	
AFFECTIONS OF THE SKIN & CELLULAR TISSUES.						
Abscesses	4	40	1	44	1	
Boils	...	1	...	1	1	
Carbuncle	...	1	...	1	...	
Cellulitis	...	1	...	1	...	
Cyst Sebaceous	...	2	.	2	...	
Elephantiasis	...	2	...	2	...	
Epulis	...	1	...	1	..	
Eczema	...	4	...	4	...	
Erythema	...	1	...	1	...	
Glands	...	1	...	1	..	
Gangrene	...	2	...	2	...	
Madura of foot	...	1	.	1	...	
Scabies	...	1	...	1	...	
Synovitis	..	3	...	3	...	
Ulcers	...	19	...	19	1	
Whitlow	...	4	...	4	...	
DISEASES OF BONES & ORGANS OF LOCOMOTION.						
Periostitis	...	3	...	3	...	
Pyorrhoea	...	1	...	1	...	
AFFECTIONS OF OLD AGE.						
Debility	...	2	...	2	...	
Senile decay	...	11	1	11	...	
AFFECTIONS PRODUCED BY EXTERNAL CAUSES.						
Burns	...	3	...	3	1	
Fractures	...	12	...	12	...	
Injuries	...	53	...	53	1	
MALFORMATION.						
Harelip	...	1	...	1	...	
ILL-DEFINED.						
Malingering	...	2	...	2	...	
Observations	7	1	...	8	4	
X-Ray Examination	...	7	...	7	...	
Hospital Total ..	36	617	21	653	21	
Maternity Cases ...	5	263	2	268	4	
Grand Total ...	41	880	23	921	25	

TABLE VI.

Return of Patients treated at the Dispensaries.

Month.	Seychelles Hospital.		Anse Royale.		Praslin.		Total.
	M	F	M	F	M	F	M. & F.
January ...	17	71	11	6	8	12	125
February ..	17	61	7	5	9	13	112
March ..	20	80	7	16	7	11	141
April ...	25	67	2	3	5	7	109
May ..	22	89	5	5	10	12	143
June ..	19	66	6	2	16	11	120
July ...	19	77	...	7	10	8	121
August ...	20	62	6	7	12	12	119
September ...	22	92	6	8	12	9	149
October ...	36	90	2	14	7	7	156
November ..	16	74	7	7	9	12	125
December ...	8	52	13	12	8	13	106
						Total	1526

TABLE VII.

Result of Cases treated at the Seychelles Hospital.

Sexes.	Remaining in Hospital at the end of 1929.	Admitted during 1930.	Total treated.	Cured.	Relieved.	Unrelieved.	Died.	Remaining at the end of 1930.	Total.
Males ...	21	347	368	257	64	20	15	12	368
Females ...	20	533	553	437	70	25	8	13	553
Total ..	41	880	921	694	134	45	23	25	921

APPENDIX A.—1929.

TABLES SHOWING THE ADMISSIONS, DISCHARGES, DEATHS FOR EACH YEAR FROM THE OPENING OF THE ASYLUM 13th MARCH 1906.

Years	Admitted.			Discharged.									Died.			Remaining in Asylum including those on trial 31stt Dec. each year			Remarks
				Recovered.			Relieved.			Not improved.									
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	
1906	2	2	4	...	...	...	...	...	...	...	...	...	1	...	1	1	2	3	
1907	3	3	6	...	...	...	...	...	...	...	...	...	...	...	...	4	5	9	
1908	7	1	8	2	...	2	1	...	1	...	...	...	3	1	4	5	5	10	
1909	12	2	14	4	...	4	...	...	...	...	...	...	...	...	...	13	7	20	
1910	3	3	6	2	1	3	...	..	...	...	...	...	1	...	1	13	9	22	
1911	4	3	7	2	1	3	...	...	...	...	...	...	4	...	4	11	11	22	
1912	5	2	7	3	1	4	1	...	1	1	...	1	2	2	4	9	10	19	
1913	2	5	7	2	1	3	...	...	...	...	...	...	1	...	1	8	14	22	
1914	5	3	8	...	1	1	...	1	1	...	...	...	1	2	3	12	13	25	
1915	3	6	9	1	...	1	...	...	..	...	...	...	2	3	5	12	16	28	
1916	4	2	6	1	1	2	...	...	...	...	...	...	1	7	8	14	10	24	
1917	1	2	3	...	...	...	...	...	...	1	1	2	2	2	4	12	9	21	
1918	2	9	11	2	...	2	...	...	...	...	...	...	3	4	7	9	14	23	
1919	6	...	6	2	1	3	...	...	...	...	...	...	...	3	3	13	10	23	
1920	4	3	7	5	...	5	...	...	...	...	1	1	2	2	4	10	10	20	
1921	5	5	10	1	2	3	...	...	...	...	2	2	1	2	3	13	9	22	
1922	4	5	9	1	...	1	...	...	...	...	...	...	3	3	6	13	11	24	
1923	6	...	6	...	...	...	3	...	3	...	...	...	1	1	2	15	10	25	
1924	5	3	8	1	1	2	...	...	...	...	...	...	5	...	5	14	12	26	
1925	3	4	7	2	1	3	...	...	...	...	...	...	2	2	4	13	13	26	
1926	5	4	9	1	2	3	...	...	...	1	1	2	1	2	3	15	12	27	
1927	6	...	6	...	1	1	1	...	1	...	...	...	5	...	5	15	11	26	
1928	4	4	8	3	...	3	...	3	3	...	...	...	4	1	5	12	11	23	
1929	5	2	7	1	...	1	1	3	4	...	...	...	3	3	6	12	7	19	
1930	4	3	7	1	...	1	2	1	3	...	...	...	2	...	2	11	9	20	

TABLE SHOWING CONDITION AS MARRIAGE, PROBABLE CAUSE OF INSANITY, MENTAL DISEASE AND OCCUPATION OF PATIENTS FOR THE YEAR 1930.

Conditnon in reference to Marriage	Males.	Females.	Total.
Maried ...	2	4	6
Single ...	9	4	13
Widow ...	...	1	1
Widower ...	...	...	...
Unknown ...	...	...	...
	11	9	20

Probable Cause of Insanity.	Males.	Females.	Total.
Moral.			
Domestic trouble ...	...	1	1
Adverse circumstances ...	...	...	...
Mental anxiety and worry ...	..	...	...
Religious excitement ...	...	2	2
Love affairs ...	...	...	...
Fright and nervous shock ...	...	1	1
Physical.			
Intemperance in drink ...	1	...	1
,, sexual ...	...	...	...
Venereal disease ...	2	4	6
Self abusive sexual ...	...	...	...
Over exertion ...	...	...	...
Sunstroke ...	...	...	...
Accident or Injury ...	...	...	..
Pregnancy ...	...	...	...
Parturition and the puerpural state ...	...	...	...
Lactation ...	...	...	...
Uterine and ovarian disorders ...	..	...	...
Puberty ...	...	...	...
Change of life ...	...	...	...
Fever ...	...	..	...
Privation and starvation ...	...	...	...
Old age ...	...	...	...
Other bodily disease and disorders ...	..	...	...
Previous attack ...	...	...	...
Hereditary influences ...	5	...	5
Congenital defect ...	3	...	3
Other accidental causes ...	...	...	...
Unknown ...	...	1	1
	11	9	20

Form of Mental Disease.	Males.	Females.	Total.
Congenital or Infantile Mental.			
(a) with Epilepsy ...	...	...	...
(b) without Epilepsy ...	3	...	3
Epilepsy acquired ...	...	..	...
General paralysis of the Insane ...	..	1	1
Mania.			
Acute ...	2	2	4
Chronic ...	1	1	2
Recurrent ..	...	3	3
A. potu ...	...	...	...
Puerperal ...	...	...	...
Senile ...	...	...	...
Melancholia.			
Acute ...	...	...	...
Chronic ...	...	1	1
Recurrent ...	...	...	...
Puerperal ...	...	...	...
Senile ...	...	...	...
Dementia.			
Primary ...	3	...	3
Secondary ...	2	1	3
Senile ...	...	...	...
Organic (coarse brain disease) ...	...	...	...
Not insane.			
	11	9	20

Occupation.	Males.	Females.	Total.
Clerk ...	2	...	2
Labourer ...	8	..	8
Proprietor ...	...	1	1
Planter ...	...	...	...
Sailor ...	1	...	1
Unknown ...	...	4	4
Washerwoman ...	..	4	4
	11	9	20

TABLE SHOWING THE NUMBER OF PATIENTS FOR EACH MONTH IN THE ASYLUM, THEIR COST AND THE AMOUNT CONTRIBUTED BY PAYING PATIENTS TOWARDS MAINTENANCE FOR 1930.

Month	No. of patients			Cost						Cost of Washing per month for a patient		No. of Paying patients			Total amount contributed by paying patients		Classes of paying patients		Remarks
	Males	Females	Total	Total daily		Per Head		Patient per month		Rupees	cents	Males	Females	Total	Rupees	cents	1st Class	2nd Class	
				Rs	c.	Rs	c.	Rs	c.										
January ...	12	7	19	11	...	...	47	14	83	...	57	2	1	3	82	...	2	1	
February ...	11	7	18	11	60	...	50	13	99	...	56	2	1	3	73	93	2	1	
March ..	11	7	18	12	78	...	58	17	93	...	63	1	1	2	50	...	1	1	
April ...	12	6	18	11	53	...	52	15	72	...	72	1	1	2	49	...	1	1	
May ...	13	6	19	12	34	...	54	16	63	...	58	2	1	3	68	58	2	1	
June ...	11	6	17	11	66	...	56	16	90	...	64	2	1	3	80	...	2	1	
July ...	12	6	18	13	61	...	59	18	...	...	72	3	1	4	100	...	2	2	
August ...	13	6	19	12	...	...	52	16	15	..	60	3	1	4	100	...	2	2	
September ...	13	6	19	12	33	...	54	16	08	...	66	3	1	4	98	...	2	2	
October ...	12	7	19	12	69	...	55	17	10	...	63	3	1	4	85	48	2	2	
November ...	11	8	19	12	12	...	53	15	81	...	62	2	1	3	80	...	2	1	
December ..	11	9	20	12	04	...	52	16	23	...	69	2	1	3	82	...	2	1	

Appendix D.

Nurses Training School, Seychelles Government Hospital.

The training of probationary Nurses was carried out in a systematic manner during the year, the lectures were delivered by the Resident Surgeon, clinical teaching was carried out in the wards.

The following certificates of the British Red Cross Society were awarded in 1930 :—

First Aid. Examination held on 21st June 1930.

First Certificate.

Probationary Nurse	Clivy Collie	A 109789
	Amélie Hoareau	A 109790
	Julie Morel	A 109791
	Isabelle Verlaque	A 109792

Home Nursing. Examination held on 23rd August 1930.

First Certificate.

Probationary Nurse	May Adam	C 81337
	Clivy Collie	C 81338
	Amelie Hoareau	C 81339
	Julie Morel	C 81340

Advanced Certificate.

Probationary Nurse	Mary Tregarthen	D 21461

Domestic Hygiene. Examination held on 6th November 1930.

First Certificate.

Probationary Nurse	Clivy Collie	I 911
	Amelie Hoareau	I 913
	Solange Hoareau	I 914
	Julie Morel	I 915
	Anne Pothin	I 916
Midwife	Josephine Faure	I 912

Second Advanced Certificate.

Probationary Nurse	Mary Tregarthen	K 127

APPENDIX E.

Hygiene and Sanitation Examination for Sanitary Inspectors held on 4th December 1930.

ADVANCED CERTIFICATE.

Louis Frederic Fernand Westergreen F 1868.

FIRST CERTIFICATE.

Henri Phi'ip Barallon	F 9447
Marcel Grandcourt	F 9448
Marc Payet	F 9449

The following were the papers set for this examination, from which can be seen the standard required for Sanitary Inspectors :—

Examination for First Certificate in "Hygiene and Sanitation.

1. Name the diseases in Seychelles which should be reported to :—
   (a) The Sanitary Authority ?
   (b) Define the duties of a Sanitary Inspector ?
2. Air.
   (a) Give the composition of the air ?
   (b) How may air be contaminated ?
   (c) Explain why a room filled with people becomes unhealthy ?
3. What are the principal diseases propagated by the flesh of animals ? If you examined a carcass how you would detect them ?
4. What is meant by good drinking water ? State the different methods by which water may be purified ?
5. Define the following terms and give examples of each :—
   (a) Disinfectants ?
   (b) Deodorants ?
   (c) Pasteurisation ?
   (d) Carriers of Germs ?
   (e) Incinerator ?

Examination for Advanced Certificate in "Hygiene and Sanitation".

1. Give the natural sources and functions of Vitamines ? In a modern diet show the incompletene·s and want of vitamines ? State the diseases in Seychelles due to want of Vitamines ?
2. State fully and clearly how milk may be adulterated and how by analysis you can detect same ? Give the natural composition of milk ?
3. In the following diseases :—Small-pox, Cholera, Plague, Measles, Typhus.
   (a) Give the period of incubation ?
   (b) Signs and symptoms of the diseases ?
   (c) Mode of propagation ?
   (d) Prophylaxis ?
4. Describe the different methods of disinfection ? How would you disinfect :—
   (a) Leather articles ?
   (b) Infected cotton and linen fabrics ?
   (c) Wollen articles ?
   (d) Mattresses and pillo·s ?
5. You are sent to the Outlying Islands to take steps about an alleged outbreak of fever that is supposed to be ma'aria, state in detail what would you do, paying attention to survey of marshes, water supply, mode of propagation of disease, identification of carrier, and methods of prophylaxis ?

APPENDIX F.

Annual Medical Report South Mahé District for the year 1930.

GENERAL REMARKS.

The general health of this district has been fair since my arrival. There was an epidemic of Influenza, mainly of the pulmonary type with one death from Influenzal Pneumonia.

Judging from previous reports and from this last epidemic, I am of the opinion that this disease has now become epidemic in the island.

Anaemia secondary to Ankylostome infection, is the commonest cause of disability, and it is gratifying to see that the public are attending the weekly clinics in all districts, in fairly representative numbers. The reports of the Sanitary Inspector indicate that the public are awake to measures of Community Hygiene. The latrines and streams being kept in very much better condition than before.

Asylum.

The Sanitary condition of the Asylun has been continuously good. Provisions have been of good quality and of sufficient quantity throughout the year. A new attendant has been added to the female side and has proved satisfactory. The returns of admissions &c. are appended.

Leprosy.

No new lepers have been discovered in this district during the year. One additional case has however come into this district from Victoria.

The total number now attending the weekly clinic is 4 men and 1 woman.

Venereal.

Free treatment is now given once a week to those suffering from these diseases which are all too common.

Vaccination.

187 children were vaccinated during the year of which 8 had to be revaccinated a second time.

School Inspections.

Taking the schools as a whole, 33o/o of those on the roll were absent on the days of examination.

These absentees, being, in all probability, those most in need of medical inspection, conclusions formed from the examination of the others may be misleading.

The general health of the 66o/o examined, however, was fairly good. The proportion of Ankylostomiasis was found to be high in only two districts ; viz :— Anse Aux Pins and Anse Royale R. C. (the cases here were mainly drawn from Bougainville).

There were also a few cases of Jiggers, Tuberculosis and Dermatitis.

I would recommend that provision be made to ensure the use of disinfectants in cleaning the Latrines used by the children.

Return of patients treated at the South Mahé Dispensary.

Month	Male	Female	Total
January			
February	11	6	17
March	7	6	13
April	7	16	23
May	4	3	7
June	5	5	10
July	6	2	8
August	...	7	7
September	6	7	13
October	6	8	14
November	2	14	16
December	7	7	14
	13	12	25
Total	74	93	167

Sd P. J. GONSALVES,
A. M. O. South Mahé.

APPENDIX G.

Annual Medical Report Praslin and La Digue Districts.

GENERAL REMARKS.

The General Health of the districts was fair. No serious epidemic outbreak during the year. Few cases of Sporadic Chicken pox occurred at La Digue towards the close of the year. Venereal diseases are only too common. Secondary anaemia and Amœbic dysentery are endemic in these islands.

The male side of the new leper camp at Round Island Praslin was completed towards the close of the year and all the male lepers 20 strong were transferred from the old leper camp to their new camp in December. The new camp consists of 12 double huts of cement base, eternite superstructure and corrugated iron roofing.

Ankylostomiasis campaign.

Regular mass treatment was administered during October and November at several centres of the District, people came up willingly and the campaign was a success.

Leprosy.

There were 13 segregated lepers at the beginning of the year, 10 at Praslin and 3 at La Digue. One of them died at Praslin and another at La Digue during the year. 3 more were notified and declared at Praslin and one at La Digue giving a total of 15 lepers, being 4 males and 8 females at Praslin and 3 males at La Digue at the end of the year ; showing an increase of 2 lepers excluding the two dead. It is very likely that there are more hidden cases that are not yet discovered.

Public Latrines.

There are 20 public latrines at Praslin and 8 at La Digue these were regularly cleaned and kept up by labourers employed for the purpose.

Vaccination.

122 children were vaccinated during the year of which 32 had to be revaccinated a second time.

School Inspection.

The schools of the district were inspected twice during the year and the reports forwarded.

Vital Statistics.

Year.	Total Births.		Total Deaths.	
	Praslin.	La Digue.	Praslin.	La Digue.
1929	89	48	51	21
1930	66	46	37	18

Still-Births.

Year.	Praslin.	La Digue.
1929	8	2
1930	9	0

Analysis of the mortality figure in respect of age shows that 10 deaths at Praslin and 4 at La Digue were among people over 65 years of age, of the remaining deaths 14 at Praslin and 10 at La Digue were among children of two years and under. These figures give a very high percentage of child mortality.

Further analysis shows that 5 deaths at Praslin and 6 at La Digue were among children under one year of age. These figures when read together with the Still-births argues for the necessity of anti-natal clinics and child-welfare schemes in this colony.

The return of Patients treated at the dispensaries is herewith appended.

Cottage Hospital Praslin.

No change in the staff, the nurse gives chloroform at emergency operations. The Maternity section of the hospital is getting more and more popular as is shown by the number of admissions which is more than double of 1929.

The detailed list of admissions, deaths and operations is appended hereafter.

Statistics Cottage Hospital Praslin:

No. admitted for the year.	No cured.	No. relieved.	No. transferred to Seychelles Hospital.	No. of deaths.
67	59	7	...	1

Nature and Number of cases treated.

1.	Non specific Pyogenic infections.		
	(a) Abscesses various ...	...	10
	(b) Gangrene, Burns 3rd degree	...	4
2.	Injuries.		
	(a) Soft parts various injuries ...	...	17
	(b) Fractures different ...	...	2
3.	Diseases of Lungs and Pleura.		
	Pneumonia ...	...	1
	Pleurisy wet ...	...	1
4.	Diseases of Kidney and Urinary apparatus.		
	Phymosis	...	1
	Retention of Urine ...	...	1
	Extra vasation of Urine ...	...	1
5.	Diseases of Ear, Nose and throat.		
	Otitis media ...	...	2
6.	Tropical Diseases.		
	Amœbic Dysentery ...	...	2
7.	Diseases of the Eye.		
	Iritis	...	1
	Foreign body ...	...	1
8.	Obstetrical and Gynæcological.		
	Puerperium ...	...	21
	Eclampsia ...	...	1
9.	Poisoning.		
	Petrol Poisoning ...	...	1
	Total	...	67

List of cases that required Surgical aid at Cottage Hospital.

Nature of diseases	No. of cases	Nature of Operation	Anæsthetic used.
Abscesses ...	10	Incisions	2 chloroform 8 Ethyl chloride
Pleurisy ...	1	Aspiration	Ethyl Chloride
Colle's fracture ...	1	Set up	Chloroform
Fracture of both bones of leg ...	1	Set up	do
Difficult labour ...	3	Forceps	do
Foreign body in eye ...	1	Removed	Cocaine
Injuries ...	11	Stitched	2 under Chloroform
Burns ...	2	Skin graft	Chloroform
Extravasation of Urine ...	1	Multiple incision & external urethrotony	Chloroform
Phymosis ...	1	Circumcision	Cocaine
Incomplete abortion ...	2	Completed	Chloroform

Return of patients treated at the Dispensaries.

Month	Bay St Anne		Grand Anse		La Digue		Total
	M	F	M	F	M	F	M & F
January ...	1	3	3	2	4	7	20
February ...	3	5	2	4	4	4	22
March ...	1	3	2	2	4	6	18
April ...	2	1	1	2	2	4	12
May ...	3	2	2	4	5	6	22
June ...	3	2	4	3	9	6	27
July ...	2	3	1	2	5	5	18
August ...	3	2	4	1	5	9	24
September ...	2	2	6	1	4	6	21
October ...	1	1	2	1	4	5	14
November ...	2	3	1	4	6	5	21
December ...	2	4	1	6	5	3	21
Total ...	25	31	29	32	57	66	240

APPENDIX H.

Dental Inspection of School Children by Mr Murray Government Dentist.

As requested I append a detailed report of my inspection of the children of the Schools in Anse Royale and Anse aux Pins, both Church of England and Roman Catholic.

Unfortunately the number of scholars in the schools were not up to the average, owing to the rain, but sufficient were inspected to provide the average for the report.

For the sake of comparison I also give the figures from St. Helena, where the native diet was practically the same, also England.

It will be seen that here in Seychelles we have a *very* high standard of sound dentition, twice as high than England *eight* times more than St Helena.

Of course, I have yet to inspect the Town Schools, which may affect the average, nevertheless, it will be very interesting to find out why there should be so much in the favour of Seychelles, compared with St. Helena where the same standard of living is maintained.

In my full Report I hope to have fathomed the reason.

Seychelles Schools.

Anse Royale (Church of England)	...	Boys	11
" " " "	...	Girls	9
" " (Roman Catholic)	...	Boys	50
" " (" ")	...	Girls	78
Anse aux Pins (" ")	...	Boys	53
" " (" ")	...	Girls	69
Total	...		270 Scholars inspected.

No. of Scholars with sound dentition	108	40o/o.
No. " " requiring slight attention	162	60o/o.

St. Helena.

Children with Sound Dentition	5o/o.
" requiring treatment	95o/o.

England.

Children with Sound Dentition	20o/o.
" requiring treatment	80o/o.

APPENDIX I.

SCHOOL INSPECTION FOR THE YEAR.

School.	Date of Inspection	Present Boys	Present Girls	Total on Roll	Health	Ventilation	Light	Area	Cleanliness	Latrines.	Remarks.
Victoria Roman Catholic ...	15.12.30		18	24	Good	Good	Sufficient	Sufficient	All class rooms require to be lime washed.	Only one latrine for 24 girls. Another required.	The latrine for female teachers could be improved. Dental caries in a good many cases as well as slight ocular defects in some children.
Victoria Roman Catholic ...		190		247	Good	Good	Sufficient	Sufficient	do	Clean	Repairs to roof necessary as there is rain down in some class rooms, verandahs leak in several places.
St Paul's Ch. of England ...	16.12.30	26	48	81	Good	Good	Sufficient	Sufficient	Good	No latrine for boys.	29 boys on roll it is necessary to provide a latrine. Dental caries present in some children.
Victoria Ch. of England ..	18.12.30	91	43	150	Good	Good	Sufficient	Sufficient	Fair it is about time the interior was painted.	Clean	Necessary to provide more latrine accommodation for girls, one is not enough for 48 pupils. Dental caries in young children common.
Bel-Ombre C. of Eng'and ..	7.11.30	3	3	11	Some anæmias	Good	Good	Sufficient	Good	Good	
Bel-Ombre R. C. ..	7.11.30	17	30	100	Good	Good	Good	Sufficient	Good	Fair	Latrines have their floors wet and smell objectionable. A deodorising agent should be used e.g. creosalgen.
Glacis ..	4.12.30	28	32	77	Some dental caries.	Fair	Good	Sufficient	Fair	Fair	Bad smell same remarks as above.
Anse Etoile ..	5.12.30	18	23	65	Good	Good	Good	Sufficient	Good	Good	
Port Glaud ...	5.12.30	2	14	40	Fair	Fair	Poor	Sufficient	Fair	Good	
Mont Fleuri ...	5.12.30	31	35	100	Good	Good	Fair	Sufficient	Good	Fair	Smell offensive.
Cascade ...	5.12.30	36	30	96	Some dental caries, otherwise fair.	Good	Good	Sufficient	Good	Clean	

School.	Date of Inspection.	Present Boys	Present Girls	Total on Roll.	Health.	Ventilation	Light.	Area.	Cleanliness.	Latrines.	Remarks.
Anse Royale C. of E. ...	22.10.30	15	10	34	Generally good no severe case of Anæmia met with.	Fair.	Moderate.	One room enough	Clean.	Two. good but untidy.	The lighting and ventilation should be improved by a window at the S. E. end of the room.
Baie Lazare R. Catholic ...	24.10.30	36	35	80	Fairly good. No severe cases of Anæmia.	do	Fair.	2 rooms not sufficient for full number.	Very Clean.	Three. Very clean & in good condition.	The area is insufficient. The light and ventilation could be improved by the addition of windows in each room.
Anse Boileau R. Catholic ..	17.11.30	42	46	157	Good. No severe Anæmia among those present 50o/o examined.	Good.	Good.	Insufficient for the full number on roll.	Clean.	Four. Very clean. Good condition.	Area insufficient for full roll, otherwise very satisfactory.
Takamaka R. Catholic ...	24.11.30	23	33	90	Generally good. A few Anæmia. Teeth uncared for.	do	do	Sufficient	do	Two. Good condition.	Satisfactory.
Anse Royale R. Catholic ...	9.12.30	49	59	167	A few cases of Anæmia among those present. Some severe.	do	do	do	do	Six. Clean and in fairly good condition. 3 new pits are being prepared.	There were more cases of anæmia here than at the other schools examined. Most cases live at Bougainville.
Anse aux Pins R. Catholic ...	10.12.30	57	58	155	About 50o/o of children present are suffering from Ankylostomiasis.	Very good.	Very good.	Insufficient for a full attendance.	do	Four. Clean. Two are fairly shallow.	Surprising number of cases of anæmia in comparison with other schools. Two latrines ought to be replaced by deeper pits.
Anse Boudin R. Catholic ...	25.11.30	13	25	48	Fair.	Fair.	Fair.	Sufficient	Fair.	Good.	One child suspected of leprosy asked to be removed from the rolls.
La Digue R. Catholic ...	26.11.30	64	...	70	Good.	Good.	Good.	do	Good.	do	There is football and Drill.
La Digue R. Catholic ..	26.11.30	...	95	100	Good.	do	do	do	do	do	
Grand Anse C. of England ...	25.11.30	22	30	63	Good.	do	do	do	Fair.	Fair.	Drill and football.
Mt Plaisir Ch. of England ..	25.11.30	14	21	37	Fair.	do	do	Insufficient	do	do	Are too small for the number of children. The roof is leaking.
Grand Anse R. Catholic ...	25.11.30.	13	14	42	Fair.	Fair.	do	Enough	do	do	The roof is leaking.
Consolation C. of England ...	5.12.30.	11	12	35	Fair.	do	Fair.	do	do	do	Desks not enough. Roof leaking.
Baie St Anne R. Catholic ...	5.12.30	23	28	79	Good.	Good.	do	do	do	Good.	Drill and games.

APPENDIX J.

Report on Mosquitoes and malaria at Aldabra and Assumption Islands.

The principal object of my visit to Assumption and Aldabra group of Islands was to investigate on an epidemic of fever which occurred in the months of July and August at Assumption and October and November at Aldabra group. The description of the fever from the patients and other sources strongly suggested Malaria, the more so as the fever was quite amenable to quinine treatment. There were several carriers of Malaria among the later recruits of labourers to these islands who had contracted the disease either at Mauritius or Juan-de-Nova where they had worked previously.

But the existance of Anopheles Mosquitoes, the definitive host of the disease, at either of these Islands (Assumption and Aldabra) was unknown and the one absolute proof of the presence of the Malarial Parasite in the blood of the subjects of the present epidemic had not been verified on the spot.

A similar outbreak at Aldabra had been reported as early as 1908 by Dr Addison who had seen B. T. (Benign Tertian) Parasites in the blood of the subjects. But Mr Fryer of the Percy Sladen Triust expedition who had been at Aldabra at the moment had denied the existence of Anopheles.

I arrived at Assumption, the island where the epidemic was first reported to have started, and hence the first place of my research, on Friday the 16th of January. I remained there for five days and made a vigorous search of several probable and possible breeding places and hiding haunts of the mosquitoes. Several pools and puddles showed numerous Culex egg floats and detached eggs of Stegomya and several of them were teeming with larvae and pupae of either kind and the whole place was infested with mosquitoes of both kinds (Culex and Stegomya) I never came across either a single anopheles egg, larvae or adult mosquito. The following was all that I could gather at Assumption :—

1. The epidemic occurred a few days, nearly one week, after the loading of the guano.
2. The vast majority showed in general the same symptoms : remittant fever, bilious vomiting and severe head-ache, and all were amenable to quinine.
3. 25 of those who had fever are still working at Assumption.
4. 21 of these give a history of having contracted the disease either at Juan-de-Nova or Mauritius and of occasional attacks even after their return to Mahé.
5. The remaining four have never been to any accredited Malarial region at any time of their life time, only two of them had worked constantly the whole time during the day on board the ship.
6. A systematic examination of all the 25 subjects never showed either (a) Malarial Parasites in the Peripheral blood or (b) Positive spleen.
7. A systematic examination of all the children on the Island gave a negative spleen.
8. No case of death occurred from the fever.
9. The last case of fever occurred towards the close of August.

I may venture to offer the following explanations of the above observations. The case of the 21 carriers is easily explained.

The repeated extra work during the period of loading brought about a depression in the general health and a diminution in the resisting power of these who had never got completely cured of their malaria. This gave a chance to the hitherto dormant Parasites to become active which resulted in the outbreak of the latent malaria fever. The failure to obtain the Parasites in the Peripheral blood of the infected is due to the long interval of nearly 4 months that elapsed between the attack and the time of examination, and also to the quinine administration. It is reported that the M. T. Crescents may be found as late as 6 weeks after the administration of quinine and the first appearance in the Peripheral blood.

But here the time interval was nearly 16 weeks.

Still the four remaining cases have to be explained. On the one hand I should not claim that my search after Anopheles was in any sense exhaustive ; for one reason I happened to be there at a time when the island had no rain at all for some time, and for another my stay was too short to make a complete search.

On the other hand there is no positive proof to show that those were cases of malaria, and none of them developed fever either just before my arrival or during my stay on the island, one has to conclude from the above observations that Anopheles has not yet gained access to Assumption.

A few hours of voyage from Assumption on board the Charles Edouard brought me to the Atoll of Aldabra. Bad weather forced us to drop anchor about 20 miles away from the settlement and it was not till late the next day (Thursday the 22nd) and after a tiresome voyage through the lagoon that I could arrive at the settlement in Picard Island.

Here the conditions were much more favourable for my investigations. There was a case of fever admitted in the Hospital and kept without quinine. The few showers of rain which had fallen the week before had left sufficient water in all the puddles and pools.

A blood examination of the patient in the Hospital was soon made. It showed a heavy infection of M. T. Rings. But the patient had been to Juan-de-Nova and had contracted the disease there.

The next day came 2 more patients, their blood also showed M. T. Rings (heavy infection) ; none of these had been anywhere outside the colony at any time of their life. In two days more came a dozen cases, all of them showed invariably M. T. Rings with varying degrees of

infection. Altogether 15 cases declared fever and all the 15 showed M. T. Rings and only M. T. Rings. I emphasise this as what had been reported by Dr Addison was B. T. Rings.

These findings established one factor that the fever was Malaria of the M. T. type whose definitive host must be in the vicinity.

The existence of the Anopheles had now to be proved. The afternoons of the first two days were spent in the examination of the water tanks and the barrels of water belonging to the labourers.

The fresh water tanks which are not mosquito proof did not show much mosquito life in them whereas every barrel of water was alive with Culex and Stegomya larvae. Search was now made in the pools close by the settlement. In one of the puddles close by, about 80' distant from the manager's house, Anopheles larvae and pupae were discovered in association with Culex larvae and pupae.

A number of Anopheles larvae and pupae were taken and set aside to breed out from a specially constructed breeding apparatus.

During the night the Manager's house and the Hospital were examined. There was no sign of the adult Anopheles. The next morning I found three of the culprits all females resting in a corner of my mosquito net after a sumptuous feed of blood. They were immediately trapped, chloroformed, examined and identified to be Anopheles.

At the same time 4 imagines, 3 males and 1 female, had hatched out in the breeding apparatus. They were identical with the ones caught. Thus the existence of the other factor in the propagation of Malaria was established. A number of specimens were collected for the identification of the species.

Attention was now directed as to the possibilities of anti-Malarial measures, as a temporary effort, all those that showed M. T. Rings in their blood were segregated at the Hospital and treated. Prophylactic quinine treatment was ordered to those that had no fever.

A systematic examination of all the possible breeding grounds was now started. Police Corporal Morel who came along with me and Mr Hoareau the Ag. Manager who had by now learned something of the Anopheles mosquito and larvæ were invited to assist me.

With this staff we were able to examine in eight days and with some difficulty 966 pools and other collections of water all situated within a 100 to 150 yards of the camp and settlement, every pool examined was demarkated by a mark line those containing only Anopheles larvæ received two marks, and those with Anopheles larvæ in company with the rest received only one mark. Thus at the end of 8 days we had :—

Total number of Pools examined		966
Total ,,	marked with 2 marks	23
Total ,,	marked with 1 mark	258
		——281

Thus showing a total of 281 actual breeding places of which 23 were pure Anopheles pools. The remaining 685 although did not actually show Anopheles larvæ, yet should be considered as potential breeding places and considering the short distance from the camp at which they are found, they should be considered as breeding grounds of the first order.

On the 10th day of my stay on the Island I procured the services of all the labourers on the Island through the courtesy of the Acting Manager. They were divided into 5 gangs each with a *commandeur* at its head. The labourers had most of them brought their water buckets at the request of the Manager, these were filled with a mixture of Paraffin and Crude oil (paraffin 1 Crude oil 4 parts). The aim and method of petrolage had been previously explained in detail to those who acted as the *commandeurs* and they had each an empty cigarette tin to pour out the mixture.

The party moved for petrolage at 7.30 a.m. and returned at 10 a.m. for fresh supplies. By noon all the 966 marked breeding places were treated thoroughly with the mixture.

This had exhausted my store of Crude oil and Paraffin. The tide was at its neaps and the idea of getting down to the other islands of the group as Ile Michel, Anse Malabar, Dune Jean Louis and other notorious mosquito haunts even by a pirogue through the lagoon was out of question.

I had no camp kit with me. Hence further stay on the island was found useless and I took passage back to Mahé on board the Zipporah on the 1st February 1931.

I must admit that my survey included only part of Picard which is the main settlement for the whole group. Before leaving for Mahé I had examined blood films of all those that had showed M. T, Rings, 5 of the early cases showed crescents and it was not yet time for the rest to show crescents.

The finding of Malaria and Anopheles at Picard creates a new and important problem. Hitherto this pest was unknown in this colony. Whatever Malaria we had was only imported cases which could do no harm to anybody else except the patient, for want of the transmitting agent (Anopheles) of the Parasite. Now the situation is different ; we have a good number of imported carriers and Anopheles is our next door neighbour. Hence every effort has to be made for the suppression of Malaria at Aldabra and the prevention of Anopheles from getting access to the other islands of the Archipelago.

Our Anti-Malaria measures should in general follow the general principles of Anti-Malaria measures adopted in other countries with minor modifications arising out of local peculiarities. The Malarial Parasite has got life cycles ; the sexual one occurring in the mosquito and the sexual one in man. Hence our attempts might be directed in attacking the Parasite in the human body and the destruction of the Anopheles larvae.

Under the first heading I would suggest :—

(a) The immediate removal of all the carriers from Aldabra either to Assumption or Cosmoledo and replacing them by healthy men who never left the colony for a malarial region. This is in no way an extravagant idea as the number of carriers at Aldabra are not very many and the same company has the lease of all the three islands.

(b) Prophylactic quinine administration in occasional large doses to the new arrivals and those that remain at the spot.

(c) Any case that declare fever should be immediately segregated at the Hospital and treated with quinine under mosquito nets and as the patient would in all probability be a carrier he should be removed from the island at the first opportunity.

As regards destruction of mosquitoes they are better attacked at their larval stage. As far as I have seen larvae exist in very small numbers in the water tanks and in enormous numbers in all the open barrels of water and in very little pit that are widely scattered all over the islands. The number of these pits is almost unlimited and one wonders whether one can possibly manage to deal with all of them. The surface of the island is hard, being formed of madreporic corals or coral derivatives and the action of rain has produced an almost unlimited number of these pits which are either actual or potential breeding grounds of mosquitoes. Their number would only be increasing as time goes on. The nature of the land does not admit of any irrigation works. The only thing that can be done is to fill up as many selected pits as possible with sand from the beach and to treat with paraffin and crude oil all the actual breeding pools and as many of the potential breeding grounds as possible. I should warn that the cost of this procedure would be enormous. As regards the water tanks they should be completely covered with iron roofing and protected at the surface by a covering of wire gauze. Corrugated iron roofing exists at the moment but it is defective in many places. As regards barrels, men should be supplied with only closed barrels with one small hole at the top to receive water and another at the bottom to remove water, both to be tightly corked when not in use.

As regards the question of Anopheles from gaining access to other islands I could only suggest that ships coming from Aldabra to Mahé should all be fumigated and that these vessels should not touch any other adjoining islands on their homeward course.

Magisterial Work.

There was not much Magisterial work on these islands. I touched at Cosmoledo on my outward voyage where I examined books. No complaint was heard from the labourers and there was no one sick on the island, there was sufficient water and provisions.

Assumption has a much larger settlement than either Cosmoledo or Aldabra and presents an atmosphere of neatness, order and method.

The labourers are contented and no complaint was brought up, there are 88 men, 15 women and 16 boys on the pay sheet of the company and 34 women and 13 children who are not paid by the company. There is sufficient accommodation for all the labourers but *no latrines to the camp.* The Hospital neat, no patients, drugs sufficient. There is enough rain water collected in the tanks to run for the whole year, weights and measures correct, the stock of rations is enough to rest for three months. List of fines inflected since the last visit up to date is herewith appended.

Aldabra unlike Assumption shows evidences of an incompetent management, It is sometimes difficult to decide whether the men are controlled by the manager or Vice Versa, perhaps they meet half-way. There is a very good building for hospital, but, it appears to be abandoned. Dirt has accumulated everywhere, only few of the beds have the complete number of planks, some of them stand on 3 legs, the cupboard is bathed in oil, some bottles are found in it, but one has to guess what they are, for want of label. The mixtures are found partly in the manager's house partly in the Hospital and partly in the shop. There is not even a decent mattress, needles to speak of pillows, sheets and other comforts to a sick person, pages are torn off from the punishment book so that the loose sheets are found in it and the pages are not numbered, hence one is not sure whether the whole record is there and whether it is correctly kept. However all that could be seen since the last visit is herewith appended. Stock of rations enough for three months, there is enough water collected in the tanks to last for the year.

Total number of men 30, woman one and children 25, and these are in the pay of the company. Besides there are 43 persons who are not in the pay of the company, the latter includes labourers employed by contractors of "Calipee" and wives of labourers.

Latrines are in bad condition, huts are dirty and general sanitation bad.

Sd. K. C. MATHEW,
A. M. O. and Visiting Magistrate.

Report on the Inspection of Coetivy Island.

The total population of Coëtivy consists of 78 men, 40 women and 43 children including the manager and his family, making up a total of 171 souls in all. Of these 133 are in the pay of the company the rest being children of under age. There are only 18 married couples.

The general health of this little colony was not very bad although there were many who complained of pain, numbness and tingling sensation (Peripheral neuritis) of the legs and feet. Those of the South camp present generally a better health than those of the north camp. There were 5 patients in the hospital of these only two were really sick, one with tender calves, a case of early Beri-Beri of the dry type and another a case of suppurating nasal polyp. The other three were presumably malingering. Some cases of what is popularly called "Decoqué" with itching in the eyes came up for advice and treatment. These were probably early cases. "The Decoqué" usually present generalised dermatitis and eye troubles. The dermatitis is exfoliative in nature and is more pronounced on the scrotum, corners of the mouth and lips. The eye trouble may consist in mere itching and watering of the eyes or may go on to conjunctivitis, keratitis or even to ulcer on the cornea. Some cases show extensive dermatitis with dimness of vision showing nothing either in the cornea of conjunctiva to account for same.

The "Decoqué" patients usually complain of recurring headache and chronic constipation. The etiology of this condition has to be further investigated. Chiggers are extremely common and there was at least one patient who could not work as his feet were badly infested with this insect. Worms are very common particularly among the children. Two cases of inguinal hernia and a case of large fibroid of the uterus came up for consultation.

General Sanitary Conditions.

There is very little to be said in favour of the water supply to the labourers on this island. It comes from unprotected shallow pit usually not more than 3 to 4 feet in depth. The water drawn from these pits is usually surface water with all the impurities of the surface water collected in a well cultivated ground. Besides it is brackish. Many of these pits smell of H_2S probably due to the decaying roots (a sample of this water has been submitted to the Hon. Director of Agriculture for Analysis) washing of clothes is freely done in close proximity of these pits. These statements apply particularly to the north camp this may partially account why this camp is not so healthy as the other one although both get the same rations. The Southern camp has three constructed drinking wells. But they are shallow and are not protected either by a parapet wall or an impervious plat-form to prevent surface soakage.

There are only two possible means of procuring tolerably safe drinking water in the island: —

1. To store sufficient rain water to be doled out to the labourers for only drinking purposes as is the case for the manager.
2. To provide well constructed and adequately protected deep wells for drinking purposes.

Housing :—There is enough accommodation for all the labourers, but the huts are placed in the hollow rather than on the crest of the undulations and there is no attempt made to have a decent comparatively raised ground floor. As a consequence the floor is always damp and during the rains they are even flooded. The workmen and his family have to spend more than half the day on the damp floor and it is probable that this forms a contributing factor in the causation of the peripheral neuritis of the legs so common in this island. As an example may be quoted the case of a labour and his family who managed to procure gunny bags for their sandy ground floor, all the occupants of which never complained of any symptoms of peripheral neuritis in all the 18 months they spent on the island and also the case of the *commandeur* and his family who get the same ration as the rest, but, has a house with a raised damp-proof ground floor.

Sandy soil is the favourite haunt of the Chiggers and on this account too the present floor of the huts has to be condemned. Many of the huts have only one door and a window placed often on the adjacent sides.

All that is needed is to have more ventilated huts built as far as possible on the crests of the undulations and to have a flooring damp-proof and raised at least two feet above the ground level.

Latrines :—There are seven latrines of the pit type each containing from 2 to 3 seats. Most of them are full. These have to close and new pits dug out. It is desirable to have few more latrines if the number of labourers continue to be the same.

Hospital :—There is a small hospital of 37'x 18'x 10' with a male section of 5 beds and a female section of two beds. The area and cubic measurements are sufficient for 19 beds as required by law. Drugs are promiscuously kept in a cup-board in the male ward. Many of the mixtures have lost their labels. As per regulations there ought to be 5 beds on the male side and separate hospital accommodation of 5 beds on the women and children section. Considering the total amount of women and children come to 83 I should recommend that the present hospital building be used only for male patients with the portion cut off for female patients to be converted into a small dispensing room where all the drugs and other hospital accessories can also be stored. The drugs are to be kept under two separate cup-boards, the one containing ordinary mixtures and the other dressings and such poisonous drugs as perchloride of mercury, acid carbolic &c. kept in safe custody. A list of all the drugs have to be posted on the outer side of the cup-board. A separate building with accommodation for 5 to 6 beds has to be found for women and children.

A register containing the names of patients, the treatment and diet has to be kept at the hospital. A supply of urinals, bed-pans, and feeding cups and an enema syringe is highly desirable.

Pigs:—There are a good number of pigs on the island and they are kept at large. This is very bad as these animals are severely attacked by chiggers of which the place is badly infested.

Rations:—The rice and lentil supply are of the quality required by the regulations and the stock of same is enough to hold for more than 3 months.

Fresh foodstuffs are very rare on this island. Fish and green turtles are scarce along its coasts and little or no vegetable is grown on it. The soil of the island is fertile and there is nothing but laziness that would account for this lack of fresh vegetables. Fresh fish whenever caught is either salted or sold to the men, but never supplied as rations. This is a very bad procedure as it is the only fresh foodstuff that can be got now and again on the spot. Sweet potatoes thrive very well and yield an abundant crop as can be judged from what I have seen of a plantation belonging to the manager there is no reason why this is not grown in sufficient quantity to be distributed occasionally to the men. The importance of these little details will become evident if only one considers that it is the lack of these fresh foodstuffs that has mainly to account for the out-breaks of epidemic Beri-Beri so frequent on this island.

Some of the men take only one pound of lentil per week leaving the rest of the lentil and salt fish for an extra rupee at the end of the month. Although the labourers is satisfied with the extra rupee that goes to his saving, he does not consider the question of underfeeding. Hence this practice has been asked to be promptly discontinued.

Hookworm treatment was given to all the women and children and the total number treated was 75.

A child born on the island was vaccinated.

Apart from Medical Inspection, part of my work lay as the Magistrate of the island. Court was held on two occasions each time adjudicating on one case. The first was a case of assault and the second a case of stealing. The one was fined Rs 5 and the other 3 weeks imprisonment and was brought to Victoria. One man who acted as the leader of a party who wanted to force a passage back to Mahé without sufficient reason was ordered to the cell for a night. Another who created disturbance in the camp simulating the voice of a man in agony was ordered four hours to the cell. A woman having refused to live with her husband had been detained in the prison and she was ordered a passage back to Mahé.

Several complaints that the Manager had sold fresh fish to the men instead of giving it as rations.

The attached enquiry shows that the manager himself did not sell fish but encouraged his *commandeurs* to sell their share of the day's catch and the proceeds were to be divided between himself and the *Commandeurs*.

The Manager's action is not to be commended. He has often sold pig to the men.

Shops. The weights and measures were found to be correct. But some of the articles are sold at a profiteering price.

Tobacco leaves grown on the island and entered in the inventory at 0.50 cts per lb., is sold at one Rupee to the men. The figures are taken from a badly kept scribbled journal kept at the shop, the only available document on the subject. This book is taken back to Victoria and is deposited at the Company's Office for evidence. The shopkeeper's statement herewith attached confirms the same. But the Manager throws the blame on the shop-keeper who is his son. Nearly 400 to 450 Rupees worth of articles are sold every month in the shop.

A list showing the amount of fines from the date of last inspection is herewith attached. The first three fines seem to have been excused and I doubt whether the Manager can do so.

The prison on the island is neat and tidy.

Joseph Marie, William Anacoura and Emile Anacoura complained that they came on the island on condition that they would be given 18 extras per month and that these extras were now stopped and hence they could not continue to work. The Manager informs that he was instructed to stop the extras.

Roselin Marengo the sawyer complained that he was given only 10 lbs rice instead of 14 lbs rice per week as per his contract. The Manager does not admit of the above terms of contract.

The various complains contained in the different statements herewith attached show that the dealings of the Manager was not very fair to the man. He has to be severely reprimanded for:—

1. Selling goods at a profiteering price.
2. Selling fish which should have been served as rations.
3. Showing a differential treatment to the men of the two camps.

This is serious as it may give rise to discontentment in one camp who may lose confidence in the Asst. Manager under whom they work.

It would be worth while if the company enforces the manager to plant such vegetables as pump-kins and food stuffs as sweet potatoes which would be a very useful addition to the rations.

From what little I have seen of one out-lying island I venture to suggest :—

(a) That a Medical inspection of all the labourers, before they are sent out to the islands be instituted. This would eliminate cases of hernia, fibroids of uterus and similar other conditions which are always a potential danger to the patient. A hernia may become strangulated or a fibroid impacted at any moment and the unfortunate individual, far away from any medical help has no other alternative but to succumb to the condition.

That the managers of the more important outlying islands be asked to undergo a First Aid training while they are on leave on the mainland. This would enable them to learn the first principles of care to the sick. The Managers of these islands have to be carefully selected as they play an important role in the social life of the isolated labourers who look upon their managers as their guardian, priest and medical adviser.

(Sd.) K. C. MATHEW,
A. M. O.

9th October 1930.

Appendix K.

Réglement pour le concours d'une Médaille d'argent offerte aux Ecoles de la Colonie par le docteur Bradley, médecin en chef.

1. Il sera fait par l'Inspecteur des Ecoles, en 1931, un examen, mi-partie écrit et mi-partie, oral, et dans chaque école une médaille d'argent sera décernée à l'élève (garcon ou fille) qui aura eu le plus grand nombre de points, y compris les points ajoutés pour l'âge, d'aprés le par. 4.

2. Tous les élèves dont le nom est inscrit sur le registre de l'école peuvent concourir, mais la médaille ne sera pas décernée à toute école dont l'élève, même s'il est en tête de liste, n'aura pas obtenu au moins 65 o/o de la totalité des points. Les points ajoutés en vertu du par., 4 de ces règlements ne compteront pas dans ce pourcentage.

3. L'Examen sera divisé en deux comme suit :—

Examen écrit : 5 questions.		
Nombre de points par question		10
Total		50 points.
Examen oral : 5 questions.		
Nombre de points par question		10
Total		50 points.
Grand Total		100 „

4. Les points suivants pourront être ajoutés au Grand Total des points obtenus dans les deux examens (oral et écrit) pourvu toutefois que le pourcentage obtenu dans ces examens ne soit pas moins de 65 o/o.

Si l'élève est au-dessous de 10 ans le jour de l'examen 20 points.

11	„	„	„	15	„
12	„	„	„	10	„
13	„	„	„	5	„

5. Au cas ou 2 ou plusiers élèves de la même école (avec les points ajoutés en vertu du par. 4) auraient le même nombre de points, il sera fait par l'Inspecteur des Ecoles, un examen supplémentaire ; mais dans le cas d'une école où le pourcentage des points serait moins de 65 o/o une période de six mois devra s'écou'er avant le second examen.

6. Au cas où un élève avec les points ajoutés en vertu du par. 4 sortirait en tête de liste mais n'aurait pas la moyenne de 65 o/o de la totalité des point pour les examens écrit et oral, et où d'autres élèves de la même école n'auraient pas moins de 65 o/o dans les examens écrit et oral mais vu le manque de points donnés pour l'âge d'après le par. 4 ne seraient pas sortis en tête de liste, la médaille ne sera pas décernée et une période de pas moins de 6 mois devra s'écouler avant un autre examen pour la médaille.

7. Dans tous les examens, la décision de l'Inspecteur des Ecoles sera définitive et sera sans appel.

8. Le livre employé sera "Le Cathéchisme Elémentaire d'Hygiène" publié par le docteur Bradley ; les candidats peuvent répondre en Français ou en Anglais, mais les questions dans l'Examen écrit seront posées en Français.

9. L'Inspecteur des Ecoles fera des Règlements quant à la date et au mode de conduire l'examen. Le candidats qui enfreindront ces instructions pourront être expulsés de la salle d'examen.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