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LEGISLATIVE COUNCIL,

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Medical Department

(ANNUAL REPORT FOR 1940.)

I.—ADMINISTRATION.

During the absence of Dr. V. W. T. McGusty on leave from the 24th May to the 10th December, 1940, the duties of Director of Medical Services were carried out by Dr. D. C. M. Macpherson.

The following Medical Officers were absent from the Colony on leave during the year:—

Dr. H. S. Evans from 21st May to 21st August, 1940.
Dr. J. S. Cramer from 1st January to 26th June, 1940.
Dr. W. Worger from 4th January to 16th October, 1940.

There were no retirements or resignations of Medical Officers during the year. Mr. D. K. Palmer, Government Pharmacist, died on the 15th December, 1940.

During the absence of Miss L. M. Lea on leave the duties of Matron and Nursing Superintendent were performed by Miss J. Sinclair.

VITAL STATISTICS.

Appendix A contains the Vital Statistics of the Colony, and shows that the general birth rate per thousand in 1940 was 38·05 as compared with 36·46 in 1939, and that the crude death rate per thousand was 11·97 in 1940 and 16·89 in 1939. The figures relating to infant mortality will be discussed on page 2 of this report.

GENERAL DISEASES.

Appendix B shows the cases and deaths in hospitals.

COMMUNICABLE DISEASES.

The following communicable diseases were treated in the hospitals of the Colony:—

Enteric fever.—There were 91 cases with 16 deaths compared with 99 cases and 14 deaths in 1939. Precautions were taken in every instance to prevent the disease from spreading.

Tuberculosis.—There were 387 cases with 83 deaths. The figures for 1939 were 344 cases and 81 deaths. The matter of beginning a more direct scientific investigation of the tuberculosis problem was prevented by the outbreak of war.

Pneumonia.—There were 214 cases with 49 deaths compared with 401 cases and 76 deaths in 1939.

Dysentery.—There were 203 cases with 11 deaths as compared with 821 cases and 50 deaths in 1939. There was no tendency for this disease to assume the form of a serious epidemic at any time.

Influenza.—There were 333 cases with 4 deaths as compared with 1066 cases and 10 deaths in 1939. All uncomplicated cases were of a mild type.

Venereal Diseases.—There were 159 cases as compared with 105 cases with one death in 1939, the additional cases being chiefly due to an increase in the military establishment of the Colony.

II.—PUBLIC HEALTH.

(1) *Maternity and Child Welfare.*—In the year 1927 when infant welfare work among the native Fijians was begun as a special service, the Fijian infant death rate under one year per thousand births was 158·3. During the two succeeding quinquennial periods the figures have been 100·0 and 96·44 respectively. In 1940, helped no doubt by the fact that the year was unusually free from the common epidemic diseases, the Fijian infant mortality rate fell to the low record of 69·65. Taken in conjunction with the fact that there has been a more or less steady decline in the infant mortality rate since 1927 the lowness of the figure for 1940 is eminently satisfactory,

even if it cannot be regarded as representative of a standard which is likely to be attained again for several years to come. It certainly is no longer a mere coincidence that this steady improvement has, almost step by step, followed the Fijian Child Welfare campaign.

The framework of this campaign appears to be peculiarly well suited to the social system of the Fijians. It may now be said to be founded on the voluntary women workers in the villages who carry out the daily routine of inspecting all infants and ensuring that their environmental hygiene is satisfactory. These women usually receive strong support from the older and more influential chiefs and the voluntary worker has now come to occupy an important place in native society, a fact which has, in turn, raised the status of the women generally. It is natural that the village and other Fijian workers should still require both supervision and encouragement, and in these regards not only is infant welfare work a direct responsibility of all Medical Officers, Native Medical Practitioners and Native Obstetric Nurses, but there is also especially engaged in it a staff consisting of six trained nurses and fifteen native nurses. Finally the success of the work is greatly furthered by the interest taken in it by the Administrative Officers. Indeed the part now played by the Adviser on Native Affairs is hardly less intimate than it was when he was the actual controlling authority, and in a similar sense the great personal interest of District Commissioners and most other district administrative officers keeps the attention of the Fijians constantly fixed on their children and the future of their race. By all these means, child welfare is being made to take a permanent place in the daily lives of the Fijians.

Lest one should pass from this subject with too complaisant a view of the state of the Fijians it is salutary to examine their statistics side by side with the corresponding figures relating to the two other communities, namely, people of mixed European and Native descent, and East Indians, which are as follows:—

INFANTILE MORTALITY RATE UNDER ONE YEAR.

	1927 Rate per thousand births.	1932 Rate per thousand births.	1937 Rate per thousand births.	1940 Rate per thousand births.
Fijians..	158·38	100·00	96·44	69·65
East Indians	85·10	51·71	55·70	52·25
People of Mixed European and Native Descent	83·30	51·09	53·33	28·90

Although the figures for the non-Fijian communities are extraordinarily good there is no ascertainable material reason why the Fijians should lag behind. The comparison becomes still more unfavourable in the figures for the three communities of the deaths of children under five years:—

CHILD MORTALITY RATE UNDER FIVE YEARS.

	1927 Rate per thousand births.	1932 Rate per thousand births.	1937 Rate per thousand births.	1940 Rate per thousand births.
Fijians..	232·09	142·64	204·54	132·41
East Indians	118·90	69·17	86·98	62·70
People of Mixed European and Native Descent	138·88	51·09	80·00	40·46

The conclusions to be drawn from all these figures and observations are as follows:—

(*a*) infant welfare work has helped to bring about a definite improvement in the Fijian infant mortality rate;

(*b*) the form of the infant welfare organization is suited to the present character of Fijian society;

(*c*) there still occur many preventable deaths especially between the ages of one and five years;

(*d*) in the absence of more material causes, the higher death rate among Fijian children must be attributed to indifferent parental control, and to psychological causes perhaps still inherent in their communal living habits;

(*e*) existing medical and public health facilities are adequate for the present needs of the other two communities with respect to infant welfare.

(2) *School hygiene.*—War conditions have resulted in there being an unusually large number of Medical Officers available for service within the Colony. Consequently it was possible for a brief period in 1940 to appoint a School Medical Officer on a full time basis. This officer worked in co-operation with a local dental practitioner, who generously volunteered his services in making a dental survey of a cross section of the population. The establishment of these new services found ample justification in the morbid conditions found and in the correlation of these with variations in diet. Although the period of service of the School Medical Officer was unavoidably interrupted, the question of making a member of the medical staff permanently available for the supervision

of infant welfare and the health of school children is under consideration by Government, and in addition to his other duties it is hoped that it may prove possible for this officer to devote some of his time to the very urgent problem of tuberculosis.

(3) *Nutrition.*—The work done under this heading has been of a useful routine nature rather than spectacular. Valuable experimental work in connexion with native diets has been carried out on some of the farm schools by the Director of Agriculture and Government Analyst. Diets for non-European Government officials and certain classes of labourers have been revised and special investigations are being made to establish the effect of an addition to the fat ration in the diet of Fijian school children. In a more general way Government has been successful in its efforts to stimulate the production of food crops, although in this connexion there must be mentioned a serious difficulty which sooner or later must be overcome, namely, that of protecting food stuffs, and particularly cereals, in storage from the ravages of a damp climate.

(4) *Housing.*—The Government is alive to the fact that owing chiefly to alterations in the social and economic state of the people, the matter of housing is one for close attention. In the case of Suva, where the position presents difficulties for all classes, the Government's determination to find a solution was only interrupted by circumstances arising out of the war. Fortunately the great majority of peasants are tenants of the Colonial Sugar Refining Company which assists them generously in the matter of their housing. Fortunately, too, a majority of the Fijians still live a communal existence in their villages, and so house building has not become a serious problem in their case either. Nevertheless, there remains a number of people in relatively humble circumstances in whose case housing is already becoming a problem, and to this must be added the fact that the Fijians are participating in an ever growing extent in the Colony's industries, and that as this movement increases, so the population of some villages becomes depleted to the point at which communal house building cannot be effectively undertaken. This and all the other considerations are being kept in view in connection with the general question of making whatever provision is possible for the future.

(5) *Water supplies.*—With the exception of some islands in the dry areas where the inhabitants depend on rain water catchments, and of some alluvial areas whose inhabitants are dependent on very poor surface wells, the Colony is well supplied with good drinking water, and furthermore it is the policy of the Government progressively to extend piped water supplies as circumstances permit.

(6) *Disposal of excreta.*—By constant inspection and as a result of better education, the work done in the campaign of recent years to institute a decent system of latrines has been well maintained. A sewerage system is found only in Suva. Septic tanks are rapidly increasing in number. Pans exist only where conditions preclude any other system, and in villages and country settlements the pit and borehole type is commonly found.

(7) *Port Health work.*—The work has been maintained at its usual high standard. There was no immigrant ship from India during the year. Mosquito larvæ were discovered on one vessel twenty-seven days after the water tanks had been filled at Rabaul. One other instance of mosquito larvæ in the water tanks of a ship occurred in 1939, demonstrating that constant vigilance is necessary to prevent the introduction of malaria carrying mosquitoes to these islands. Hydrocyanic acid gas is the standard fumigant used for ships and native assistants are employed, under European supervision, for this very dangerous work. During recent years strict attention has been paid to the sanitation of local vessels, and a system of regular fumigation is now in practice.

Anti-plague and anti-rat measures.—A rat catcher continually works in the wharf area, and a second is employed by the Town Board. Examinations which were carried out regularly for Plague Bacilli throughout the year were all negative. The sewer rat (*Rattus Norvegicus*) has occurred in slightly larger numbers than the black or domesticated ship's rat (*Rattus rattus*).

Aerial port work.—There was no arrival of civilian aircraft during the year, but the Port Authorities are alive to the necessity for taking strict measures to prevent the introduction of malaria mosquitoes by aircraft as this method of transport develops in the future.

TRAINING OF MEDICAL PERSONNEL.

(1) *Native Medical Practitioners.*—On the 23rd December, 1940, His Excellency the Governor with full ceremony and in the presence of a large and representative gathering, presented their certificates to twelve young men who had qualified as Native Medical Practitioners at the Central Medical School. Three of these certificates were conferred in absentia. His Excellency also presented six medals and nineteen prizes to graduates and students who had excelled at their examinations. This ceremony acts as a fit conclusion to an academic career and a proper entry into a career of valuable public service. The value of the Native Medical Practitioner, providing as he does an efficient medical and public health service at a very low cost, is now established beyond any doubt in all ten of the Administrations that are served by the Central Medical School.

Of special interest at this Graduation Ceremony was the number of special awards that were received by Native Medical Practitioner John Wesley Kere, a Melanesian graduate who is a native of the Solomon Islands. Judged by any standard this was a student of unusual ability, nevertheless his success can be regarded as an indication that any carefully selected Melanesian who has been given a good school education is capable of becoming a good Native Medical Practitioner. Therefore any doubt which existed as to whether the Central Medical School can solve the medical and public health problems of the Northern Melanesian Islands is now largely dispelled.

(2) *Nurses.*—(*a*) In introducing this subject it must again be recorded that it would be difficult to over-estimate the advantages that have accrued to the Colony from the scheme of co-operation with New Zealand introduced in 1934, which ensures the efficient staffing of the hospitals of Fiji and provides a greatly enhanced career for locally trained girls.

(*b*) The Colonial War Memorial Hospital is recognized by the New Zealand Nursing and Midwives Board as a training centre for the course of general nursing, and provides accommodation for eleven pupil nurses of this class. When it becomes financially possible to continue the Government's plan of extension of the Colonial War Memorial Hospital, facilities will be available for local training in obstetrics.

(*c*) A teaching branch of the Colonial War Memorial Hospital that is of ever-growing importance is its school for training non-European nurses in midwifery as well as general and public health nursing. Its all too modest beginning took place many years ago when a few native girls were taught hygienic midwifery and sent out to the villages to practice it. Step by step, their work has won the confidence of the Fijians until to-day the demand for their services is much greater than the supply. A very important advance was made towards the middle of the year 1940 when the number of pupil nurses in this school was increased from twenty-six to fifty, and a Tutor Sister who had been specially trained under the auspices of the Rockefeller Foundation was appointed under the Nursing Superintendent to take charge of it. A further step of far reaching importance was also made when three girls from the Gilbert and Ellice Islands Colony were admitted to the school. The whole system of training has been revised and the course has been lengthened to three years. For the present the diploma follows the old wording which entitles the holder to practice as a Native Obstetric Nurse. It is confidently believed that this school will not only continue to supply in increasing numbers native midwives and public health nurses, but that it will also provide a large proportion of the nursing staff of the public hospitals. The recent enlargement of this institution combined with the extension of its advantages to other places will make it a fitting complement of the Central Medical School.

(3) *Sanitary personnel.*—Systematic training in public health and hygiene is now carried out for medical and nursing students as well as for sanitary staff up to the grade of Sanitary Overseer. The matter of training and examining sanitary personnel is now the subject of correspondence with the Royal Sanitary Institute.

(4) *General.*—At the moment when defence considerations assumed a position of paramountcy, the Government had all but embarked on its accepted plan to expand its public health services, and at the same time improve the existing facilities for teaching medical and nursing students. This plan, which like many others may have to remain in abeyance until Hitlerism is destroyed, included the building in sequence of a new Central Medical School, a new school for non-European Nurses and a Public Health Centre. Most generous assistance in the matter of building and equipping the Public Health Centre had been promised by the Rockefeller Foundation, whose officers continue to show the same keen interest in medical and health matters in Fiji. Although the buildings cannot as yet materialize, the services for which they were intended need not be held in abeyance and so, fortunately, the Central Medical School can continue to function usefully in its existing premises, however inadequate they be, and the partial expansion and general improvement of the non-European Nurses' School has been rendered possible by using for the purpose the renovated former home of the European nurses. With regard to the Public Health Centre, steps are already being taken to set in motion as many of its services as are possible with existing facilities, and particularly those connected with tuberculosis and infant and maternal welfare.

HOSPITALS.

(1) *General hospitals.*—The official number of beds provided in the main hospitals is 209 at the Colonial War Memorial Hospital, 72 at the Lautoka, 50 at the Labasa and 33 at the Levuka Hospital, making a total of 364. The average number of occupied beds was 253·33.

There is also a hospital of a lower standard known as the Provincial Hospital, of which there are sixteen having a total of 320 beds. Admissions to Provincial Hospitals numbered 4,520 with 188 deaths.

The aggregate of out-patient attendances for the Colony amounted to 92,868.

(2) *Central Leper Hospital.*—The Central Leper Hospital at Makogai is a magnificant example of a beneficial social service maintained by a Government at the highest level of efficiency without undue regard of cost. This institution serves both Fiji and the neighbouring Pacific Administrations. The number of inmates on the 1st January, 1940, was 607, and 145 patients were admitted during the year. There were 32 deaths, two unconditional discharges, and 43 conditional discharges. The number of patients on the 31st December, 1940 was 675.

(3) *Mental Hospital, Suva.*—The number of patients in this institution on the 1st January, 1940, was 82. During the year 30 were admitted, 18 conditionally discharged and 16 died. The number remaining in hospital on the 31st December, 1940, was 78.

(4) Medical Officers paid regular visits to His Majesty's Prisons during the year.

PATHOLOGICAL DIVISION.

The number of specimens examined during the year was 7,930 compared with 7,060 for 1939, a proportion of the increase being due to work done for the Military Authorities. The value of the vaccines manufactured in the Laboratory was £440 10s. 0d.

APPENDIX A.

Vital Statistics.

The estimated population at the end of 1939 and 1940 was:—

Race.	Males, 1940.	Females, 1940.	Total, 1940.	Total, 1939.	Increase.	Increase per cent.	Decrease.	Decrease per cent.
Europeans	2,251	2,036	4,287	4,259	28	·66	....	....
P.M.E.N.D.*	2,602	2,505	5,107	4,968	139	2·79	....	....
Fijians..	53,254	51,618	104,872	102,750	2,122	2·06	....	....
Rotumans (all races)	1,559	1,516	3,075	2,991	84	2·81	....	....
East Indians	54,683	43,430	98,113	94,966	3,147	3·31	....	....
Polynesians	1,151	650	1,801	1,700	101	5·94	....	....
Chinese	1,745	391	2,136	2,054	82	3·99	....	....
Others	721	675	1,396	1,342	54	4·02	....	....
Total ..	117,966	102,821	220,787	215,030	5,757	2·67	....	..

The number of births recorded during the last four years was:—

Race.	1937.	1938.	1939.	1940.	Crude birth-rate per 1,000, 1940.
Europeans	71	56	83	94	21·92
P.M.E.N.D.*	150	158	139	173	33·87
Fijians	3,432	3,811	3,672	3,776	36·00
Rotumans	129	129	98	142	46·17
East Indians	3,357	3,648	3,678	4,019	40·96
Polynesians	74	21	54	71	39·42
Chinese	18	34	34	53	24·81
Others	53	122	84	75	53·72
Total ..	7,284	7,979	7,842	8,403	38·05

The general birth-rate in 1939 was 36.46.

The number of deaths recorded during the past four years was:—

Race.	1937.	1938.	1939.	1940.	Crude death-rate per 1,000, 1940.
Europeans	36	38	31	25	5·83
P.M.E.N.D.*	40	35	50	34	6·65
Fijians	2,128	2,121	2,207	1,654	15·77
Rotumans	58	77	74	58	18·86
East Indians	901	1,034	1,192	799	8·15
Polynesians	42	49	62	34	18·87
Chinese	6	17	10	8	3·74
Others	14	17	7	31	22·20
Total ..	3,225	3,388	3,633	2,643	11·97

The general death-rate for 1939 was 16·89.

The marriages, births, deaths and natural increase for 1940 were:—

Race.	Marriages.	Births.	Deaths.	Increase.	Decrease.
Europeans	46	94	25	69	..
P.M.E.N.D.*	54	173	34	139	..
Fijians..	962	3,776	1,654	2,122	..
Rotumans	32	142	58	84	..
East Indians	1,060	4,019	799	3,220	..
Polynesians	6	71	34	37	..
Chinese	3	53	8	45	..
Others	21	75	31	44	..
Total ..	2,184	8,403	2,643	5,760	..

The rates of natural increases were:—Europeans, 16·20 per thousand; P.M.E.N.D.*, 27·98; Fijians, 20·65; Indians, 33·90; Chinese, 21·91. The natural increase of all races was 26·78 per thousand.

* Persons of Mixed European and Native Descent.

INFANTILE MORTALITY, 1940.

Race.	No. of deaths under 1 year.	Rate per 1,000 births.
Europeans	..	..
P.M.E.N.D.*	5	28·90
Fijians	263	69·65
East Indians	210	52·25
Polynesians	4	56·33
Others	8	62·50
Rotumans	7	49·29
Total ..	497	59·14

* Persons of Mixed European and Native descent.

APPENDIX B.

RETURN OF DISEASES AND DEATHS FOR THE YEAR 1940 AT GENERAL AND PROVINCIAL HOSPITALS.

Note.—This classification is based on the International list of causes of death, 1929.

The year was noteworthy for the absence of any serious outbreaks of epidemic diseases.

Diseases.	*Total.*	*Deaths.*
I.—Infectious and Parasitic Diseases	2,157	143
II.—Cancer and Other Tumors	162	13
III.—Rheumatism, Diseases of Nutrition and of Endocrine Glands and Other General Diseases	228	7
IV.—Diseases of Blood and Blood-forming Organs	118	9
V.—Chronic Poisoning	5	..
VI.—Diseases of the Nervous System and Sense Organs	529	19
VII.—Diseases of the Circulatory System	374	77
VIII.—Diseases of the Respiratory System	737	84
IX.—Diseases of the Digestive System	993	55
X.—Diseases of the Genito-Urinary System (Non-Venereal) ..	598	18
XI.—Diseases of Pregnancy, Childbirth and the Puerperal State ..	1,084	16
XII.—Diseases of the Skin and Cellular Tissues	1,474	5
XIII.—Diseases of the Bones and Organs of Locomotion	177	6
XIV.—Congenital Malformations	11	4
XV.—Diseases of Early Infancy	41	20
XVI.—Conditions Associated with Old Age	4	..
XVII.—Affections Produced by External Causes	1,141	25
XVIII.—Ill-Defined Conditions	821	29
Totals .	10,654	530

FINANCIAL.

The following table compares the total expenditure of the Medical Department for 1940 with that for 1939:—

	1939.	1940.
Personal Emoluments ..	£51,296 8 8	£53,327 19 9
Other charges	49,392 7 4	50,946 5 9
Total ..	£100,686 16 0	£104,274 5 6

The above excludes capital expenditure.

The revenue amounted to £15,741 14s. 10d.

The value of Medical Stores issued from the Government Pharmacy during the year was £11,387 12s. 6d.

V. W. T. McGUSTY,
Director of Medical Services.

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