

## **Annual report / Medical Department, Fiji.**

### **Contributors**

Fiji. Medical Department.

### **Publication/Creation**

Suva : Govt. Press, [1960]

### **Persistent URL**

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COUNCIL PAPER NO. 32 OF 1961



Colony of Fiji

ANNUAL REPORT  
OF THE  
MEDICAL DEPARTMENT  
FOR THE YEAR  
1960

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## MEDICAL DEPARTMENT

(ANNUAL REPORT FOR 1960)

### I—GENERAL REVIEW

THERE was no major outbreak of infectious disease during the year and the health of the community as a whole remained reasonably good. The number of cases of dysentery (all forms) and of infantile diarrhoea notified showed some increase, but this was probably due to improved reporting rather than to a higher incidence of disease. The occurrence of these intestinal diseases does, however, give a clear indication of the poor environmental sanitation, particularly in rural areas, where most cases were reported, and calls for marked improvement in this respect. In many villages latrines, if they exist at all, are badly maintained or unused, refuse disposal is ill-organized and water supplies are open to gross contamination. This state of affairs cannot be excused by lack of funds as adequate sanitation could be achieved with material and labour already to hand, but is due to ignorance or indolence.

2. The incidence of other diseases was in the main much the same as in 1959. The number of cases of cerebro-spinal meningitis declined, as did those of infective hepatitis. There was some increase in the cases of measles and German measles notified but there was no epidemic in either case.

3. In November a case suspected to be suffering from smallpox was notified from Niue island. Owing to the isolated situation of Niue it was not possible to arrange for consultation, but as, by telegraphic description, the case was clinically one of variola minor the diagnosis was accepted. Vaccination was offered to all persons in Suva, Lautoka and Nadi, the ports of sea and air entry into Fiji and over 40,000 persons were vaccinated in 14 days. In addition 5,000 units of vaccine were made available from Fiji and, with the kind co-operation of the Royal New Zealand Air Force dropped on Niue, this being sufficient to vaccinate the entire population of the island.

4. The B.C.G. vaccination campaign continued, the main areas covered being Vanua Levu and the Lau group of islands. Thirty-one thousand four hundred and ninety-six children and young adults were tested and inoculated when necessary during the year, bringing the total since the campaign opened to 81,869. A Senior Medical Officer was appointed during the year to conduct the tuberculosis control programme and is responsible for the inoculation campaign, domiciliary treatment, the organization of follow-up of cases and control measures in general. He works in close liaison with the Medical Superintendent of the Tamavua Tuberculosis Hospital. It is, as yet, too early to say what results the campaign has had, but the number of new cases of the disease registered during the year approximated closely to the number in 1959, i.e. 648 as against 644.

5. As forecast the number of leprosy patients discharged from Makogai as cured was considerably less than in the two previous years. This is because the total number of patients has now been reduced to 305 and of these a high proportion are persons with long-standing disease and mutilation or of lepromatous type requiring longer treatment. Unhappily there was an atmosphere of tension and discontent created amongst some of the patients, particularly the young adults, by ill-considered and ill-informed criticism of the isolation policy from a letter-writer to the local and overseas press, which upset the even flow of progress which was being made.

6. The closer integration of curative and public health services is becoming more apparent and the greater emphasis placed on preventive medicine in the training of A.M.Os. and Nurses is beginning to manifest itself. This emphasis is made not only during the periods in the training when public health is taught specifically, but stressed during clinical teaching in the lecture-room and at the bed-side. To this steady awakening to the importance of prevention has been added the realization of the need for health education of the public.

7. With a view to establishing systematic health education, a Senior A.M.O. was given study leave to take the course in Health Education in London in which he was successful and obtained the diploma. Since his return, he has made essential contacts with officers in the Education and other departments and carried out a series of surveys preparatory to initiating a wider programme. In addition, close liaison has been maintained with the Women's Interests Officer with the object of spreading health education through the medium of women's committees, clubs and institutes in both urban and rural areas.

8. There was no major hospital construction undertaken during the year, but plans for the new out-patients' department and operating theatre block at the Colonial War Memorial Hospital have been completed and a Colonial Development and Welfare grant of £180,000 has been made. Building should start early in the new year. With savings from the Nuffield Foundation grant for the Department of Preventive and Social Medicine at the Medical School an additional building has been constructed to house the Hygiene Section for training of Health Inspectors.

9. During the year there was increased public demand for a new hospital at Lautoka. Unfortunately funds are not available at present for a major construction of this nature, but a considerable amount of maintenance work and general improvements have been carried out and the hospital can be compared favourably with many in countries with a more stable economy. The criticisms levelled at the structural aspects of this institution have tended to obscure the high level of service which has been rendered from it to the public. It would not be out of place to express the hope that the public realizes that despite the structural faults and lack of some facilities which may exist at the hospital, a high degree of surgical, medical and nursing skill has been displayed by all sections of the staff.

10. The number of both in-patients and out-patients treated at all major hospitals in the Colony increased during the year and staff are to be congratulated on the way in which they have met the extra demands put upon them. The general standard of medical service in these institutions is in fact extremely high although, by many, not appreciated.

11. Owing to the shortages of staff it was not possible to expand dental services during the year and, in fact, deficiencies of transport hampered the work still further particularly in north-western Viti Levu. However, a great deal of work was achieved, particularly amongst school children and the policy continues that priority is given to conservative dentistry and dental health education in the schools.

12. Training of A.M.Os., A.D.Os., Nurses and auxiliary medical staff continued throughout the year. The first post-graduate course in public health leading to a certificate in public health was successfully completed and this is now to become an annual event. The course is of six months' duration and was attended by eight A.M.Os. drawn from various territories, three being from Fiji. The entry of dental students for the course in dentistry was disappointing and efforts will be made in future to advertise the course more widely. The training is a comprehensive one and the prospects of graduates are reasonably good. Three locally trained Nurses obtained the New Zealand qualifications and sixty graduated at Colony level. Two girls who had graduated at the New Zealand level in 1958 were promoted to the rank of Nursing Sister. A new feature of the training introduced during the year is that students work for two weeks with a Health Sister in the districts to familiarize them with public health nursing.

13. Training of Assistant Health Inspectors continued, trainees being drawn from the group of Mosquito Inspectors which are being integrated into the general hygiene service. Plans have been made to train at a higher level in 1961 and recognition of this higher training has been given by the Royal Society for the Promotion of Health and the Society's certificate will be granted to successful candidates.

14. Assistant pharmacists, radiographers, laboratory technicians and housekeeper/dietitians were also trained and a course for assistant physiotherapists was initiated at the beginning of the year.

15. One A.M.O. underwent post-graduate training at Melbourne University in medicine and paediatrics on a grant provided by the Colonial Sugar Refining Company and another took a course in obstetrics and gynaecology at Otago University at his own expense. Two local Nurses who had graduated on the New Zealand curriculum were sent to New Zealand for midwifery training.

16. The World Health Organization continued to give valuable assistance to the School in the form of two lecturers, one in biology and the other in physiology, and a generous cash grant for the purchase of equipment. In addition, the Organization continued the fellowship for the student taking the degree course in Biology at Otago University while fellowships were given to a lady A.M.O. to study maternal and child welfare in Singapore; the Chief Health Inspector to study statistical methods and to the Health Instructor to study teaching methods.

17. The Physician Specialist took a course, while on vacation leave in England, on the medical uses of atomic energy and later studied in the U.S.A. recent advances in cardiology, with the assistance of a travelling fellowship generously provided by the Rockefeller Foundation.

18. For the third successive year a seminar was organized by the Council of the A.M.Os' Association. The subject this year was Maternal and Child Welfare and all aspects were considered and included a session on family planning. That the seminar was a success can be judged not only from the lively discussions which took place, but also from the excellent report which was prepared following its conclusion.

19. The seven family planning clinics established between 1957 and 1959 continued to function and in addition, small clinics have now been opened at Levuka and Tailevu, the necessary contraceptive material having been supplied to the A.M.Os. at these centres.

20. Finally I would like to express my sincere thanks to all members of the staff of the department for their loyal and devoted service during the year.

## II—ADMINISTRATION

21. The departmental establishment is shown as Appendix I of this report.
22. *Senior Staff Changes, Appointments, Transfers, etc.*—The Director of Medical Services was absent on vacation leave from January 29th to July 11th. Dr. W. H. McDonald, Deputy Director of Medical Services, acted as Director of Medical Services during this time. Dr. C. H. Gurd, Physician Specialist, acted as Deputy Director of Medical Services from 7th January to 10th April. He proceeded on vacation leave on 23rd April. Dr. D. W. Bookless acted as Deputy Director of Medical Services from 11th April to 10th July.
23. Dr. C. H. Gurd proceeded on vacation and study leave during which time he attended a course in the United Kingdom on the medical uses of atomic energy and, with the assistance of a grant from the Rockefeller Foundation, studied advances in cardiology in the United States of America.
24. Dr. P. W. E. Downes acted as Physician Specialist during the absence of Dr. Gurd.
25. Dr. M. Gosden, O.B.E., Pathologist, proceeded on leave on completion of her agreement on 17th February and Dr. W. G. MacIntosh was appointed Acting Pathologist.
26. Dr. G. D. Murphy proceeded on vacation and study leave and took the course in Cardiff leading to the Diploma in Tuberculous Diseases in which he was successful.
27. Dr. A. J. Hibell was promoted to the rank of Senior Medical Officer and was appointed Tuberculosis Control Officer.
28. Dr. F. A. S. Emberson was awarded a Commonwealth Scholarship and proceeded to the United Kingdom to take a course leading to the M.R.C.P.
29. Dr. W. F. Whimster was appointed a medical officer by the Secretary of State and Dr. D. Clark appointed locally in a temporary capacity.
30. Dr. H. Bor retired from the Service and Mr. J. L. Gódfrey, Dental Officer, left the Colony on completion of his contract. Mr. R. B. Fyfe, Chief Health Inspector retired from the Service.
31. Mr. G. E. Martin, Health Inspector, was promoted to Chief Health Inspector.
32. Dr. W. P. Fisher was seconded to Western Samoa and Dr. B. Pitt-Payne to the Cook Islands.
33. Dr. H. Rushton was appointed consulting psychiatrist at the Mental Hospital on a part-time basis in December.

## LEGISLATION

34. Legislation of medical interest was as follows:—
- 1960—Ordinance No. 20 amended the Pharmacy and Poisons Ordinance.
- 1960—Legal Notice No. 8 amended the Schedule to the Public Hospitals and Dispensaries Regulations.
- 1960—Legal Notice No. 22 prescribed medical fees under the Air Navigation (Medical Fees) Regulations, 1960.
- 1960—Legal Notice No. 25 concerns the destruction of stray dogs by means of poisoning.
- 1960—Legal Notices Nos. 37, 54, 156, 157, 158, 159, 160, 161, 162, 166, 167, 171 and 174 concern the Burial and Cremation Ordinance.
- 1960—Legal Notices Nos. 53, 86, 104, 122, 128, 186, provide for the free entry of certain drugs under the Customs Ordinance.
- 1960—Legal Notice No. 26 amended the Public Health (Building) Regulations.
- 1960—Legal Notice No. 29 amended the Quarantine (Maritime and Aerial) Regulations.
- 1960—Legal Notice No. 74 prescribes diet and dietary scales for prisoners.
- 1960—Legal Notice No. 82 defines the areas to which the Public Health (Sanitary Services) Regulations shall apply.
- 1960—Legal Notices No. 89 provides Regulations for the temporary conditional discharge of lepers.
- 1960—Legal Notice No. 115 amended Regulation 188 of the Public Health (Building) Regulations, 1959.
- 1960—Legal Notice No. 117 amended Regulation 194 of the Public Health Regulations.
- 1960—Legal Notice No. 125 made regulations under the Public Health Ordinance controlling hotels, restaurants and refreshment bars.
- 1960—Legal Notice No. 172 amended the Dogs Ordinance.



## FINANCE

35. Expenditure for the year 1960—General, District, Special and Rural Hospitals and Dispensaries:—

Salaries of Medical Officers .. .. .	£60,996
Salaries of Assistant Medical Officers .. .. .	81,897
Salaries of Laboratory Staff .. .. .	6,860
Salaries of Nursing Staff .. .. .	133,786
Salaries of X-ray Staff .. .. .	2,640
Salaries of Clerical Staff .. .. .	25,654
Salaries of Dental Staff .. .. .	10,900
Wages of Subordinate Staff, Rations, Power, Heat, Light, Water, Refrigeration, X-ray Services, Laundry, Hospital Paupers' Burial, General Maintenance, Stores and Incidentals	204,916
	<u>£527,649</u>

36. Medical Stores and Equipment—Value of issues to nearest £:—

	<i>Drugs and Instruments</i>	<i>Clothing and Bedding</i>	<i>Totals</i>
	£	£	£
Cash Sales .. .. .	20	....	20
Private Accounts .. .. .	190	....	190
*Special Hospitals .. .. .	6,207	4,410	10,617
*General Hospitals .. .. .	39,563	14,117	53,680
Rural Hospitals .. .. .	5,552	1,308	6,860
Dispensaries .. .. .	6,750	147	6,897
Health Sisters .. .. .	1,653	154	1,807
Nurses .. .. .	3,094	212	3,306
Missions .. .. .	54	4	58
Other Medical .. .. .	1,755	492	2,247
Other Departments .. .. .	589	134	723
	<u>£65,427</u>	<u>£20,978</u>	<u>£86,405</u>

\* Values for Special and General Hospitals also include £1,844 and £7,534 for X-ray films.

37. Revenue and Expenditure of the Department:—

	1958	1959	1960
	£	£	£
Gross Expenditure .. .. .	888,047	901,285	951,432
Revenue .. .. .	78,169	86,867	108,274
Nett Expenditure .. .. .	809,878	814,418	843,158
Percentage of Colony's Expenditure	10.0%	10.0%	13.4%
Expenditure per head of population	44s. 0d.	42s. 2d.	42s. 0d.

These figures include revenue and expenditure of the South Pacific Health Service.

<i>Year</i>	<i>Total Population</i>	<i>Expenditure per head</i>
1951 .. .. .	301,959	32s. 10d.
1952 .. .. .	312,678	36s. 7d.
1953 .. .. .	320,801	38s. 8d.
1954 .. .. .	333,389	36s. 9d.
1955 .. .. .	345,164	36s. 3d.
1956 .. .. .	357,881	40s. 2d.
1957 .. .. .	361,038	42s. 7d.
1958 .. .. .	374,284	44s. 0d.
1959 .. .. .	387,646	42s. 2d.
1960 .. .. .	401,018	42s. 0d.

38. The above table shows the expenditure on Medical and Health Services per head of the population over the past ten years.

#### COLONIAL DEVELOPMENT AND WELFARE PROJECTS AND RESEARCH BY OTHER ORGANIZATIONS

39. There were no Colonial Development and Welfare schemes in progress during the year, but the report of Mr. G. F. Burnett of Her Majesty's Overseas Research Service on his researches into the control of filariasis was published and distributed.

40. Drs. Gurd and Downes carried out clinical research into the use of Griseofulvin in the treatment of ringworm.

41. Professor J. A. R. Miles and Mr. R. G. Ordish of the New Zealand Research Council undertook investigations into the carriage of viruses by arthropods.

42. Preliminary arrangements were made for investigation into the efficacy of a new drug TH1314 on behalf of May and Baker Limited in the treatment of tuberculosis.

## INTERNATIONAL AGENCIES

43. *World Health Organization*—The World Health Organization continued to assist in the training at the Central Medical School by the loan of two lecturers, one in Biology and the other in Physiology. The Physiology lectureship appointment will be terminated in 1961 when a local appointment is likely to be made, but that in Biology is to continue until 1962. A grant of \$750 was made for the purchase of equipment.

44. *Fellowships*—Jimione Samisoni, the Fijian student who was granted a fellowship to study physiology at Otago University, obtained his degree and returned to Fiji to take up appointment as assistant lecturer at the Medical School.

45. *China Medical Board*—Maneklal Vital who was granted a fellowship by the China Medical Board to study physics obtained his degree at Otago University and remained in New Zealand for a further year to take a teaching course.

46. *South Pacific Commission—Meeting*—The Director of Medical Services attended the meeting of the Research Council (Health Section) in Noumea, New Caledonia, from July 12th–19th.

47. *Examiner*—Dr. W. Norman-Taylor, Public Health Officer, South Pacific Commission, visited Fiji in December and acted as external examiner in public health in the final examinations at the Medical School.

48. *Nutrition*—Miss M. Maramba, the Commission's Nutrition and Home Economics Officer, carried out an investigation into the available food for consumption in the Colony and did a market survey from July to August.

49. *Epidemiological Service*—The epidemiological service for the island territories is the responsibility of the Inspector-General, South Pacific Health Service and is centred in Suva. The South Pacific Commission subsidized the service by an annual grant of £400.

## III—PUBLIC HEALTH

## ORGANIZATION

50. The organization of the public health services remained much the same as in former years, there being close integration of public health and curative services. The medical services are administered by the Director of Medical Services as head of the Medical Department. He is assisted at headquarters by a Deputy Director of Medical Services, Administrative Secretary, Nursing Superintendent, Chief Health Inspector, Accountant and clerical staff. For administrative purposes, the Colony is divided into four divisions corresponding with the general administrative divisions and each is in the charge of a Divisional Medical Officer, who is responsible for the organization of the curative and preventive arrangements of his area. He controls the work of junior Medical Officers and Assistant Medical Officers, Health Inspectors, Assistant Health Inspectors, Health Sisters, District Nurses and other medical personnel in his division. The two exceptions to this pattern are in the Central Division in which the Colonial War Memorial Hospital, as specialist centre, and the Tamavua Tuberculosis Hospital, as central sanatorium, are administered by Medical Superintendents and not by the Divisional Medical Officer and in the Western Division where, during the year, the hospital was placed in the charge of the Surgical Specialist acting also in the capacity of Medical Superintendent while the Divisional Medical Officer was responsible for the public health and all other curative centres in his division. A conference of Divisional Medical Officers was held during the year under the Chairmanship of the Director of Medical Services, to decide upon policy and co-ordinate activities. During one day of the conference, specialist staff attended to advise on matters in their particular field.

## COMMUNICABLE DISEASES

51. The trend in certain notifiable diseases in the last six years is shown in the following table:—

	1955	1956	1957	1958	1959	1960
Dengue .. .. .	36	38	12	8	28	5
Dysentery (all forms)	250	231	233	163	113	203
Enteric Group .. .. .	26	14	25	29	29	5
Infantile Diarrhoea .	1,452	2,369	2,117	1,991	2,092	3,295
Pertussis .. .. .	627	471	261	1,000	1,154	509
Influenza .. .. .	5,437	5,710	12,190	11,626	20,041	13,030
Measles .. .. .	9	12	7,066	15	13	712
Poliomyelitis .. .. .	14	....	6	328	6	....
Infective Hepatitis .	53	63	123	279	396	206
Tuberculosis* .. .. .	745	654	654	721	644	648
Leprosy* .. .. .	36	40	44	39	42	39
Gonorrhoea .. .. .	322	299	375	335	281	380
Syphilis .. .. .	48	15	26	10	8	2
Yaws .. .. .	....	519	159	135	82	26
Tetanus .. .. .	37	38	38	56	47	41

\* These figures are obtained from the Central Registry and not from notification records as those from the Registry are considered to be more accurate. A full table of all notifiable diseases is given at Appendix XII. Certain of the diseases listed deserve special mention:—

52. *Intestinal Diseases*—The number of cases of dysentery and infantile diarrhoea notified during the year showed an increase, but this is probably not indicative of a true rise in incidence, but only of improved reporting. It is not suggested that the situation is satisfactory as conditions of environmental sanitation, particularly in rural areas, are far from that and the figures give a clear call for greater activity in providing more latrines; organizing better disposal of refuse and purifying water supplies. The incidence of typhoid fever was less than in the previous year, but this also is not really significant as there was no major flooding in the Rewa area during the year whence most cases have been notified formerly after heavy rain.

53. *Cerebro-spinal Meningitis*—The number of cases notified was less than in 1959 and there is reason to believe that the disquieting increase shown in that year was a false alarm.

54. *Infective Hepatitis*—The number of cases notified showed a decrease for the first time in almost seven years. Over that period the number of cases reported has been from 29 in 1955 to 396 in 1959. In the year under review, the number fell to 206, but it is too early to say whether this is significant.

55. *Yaws*—Only 26 cases of yaws were notified and most of these were non-infective. All cases reported were immediately followed-up and treated. Contacts were also given treatment.

56. *Tuberculosis*—The number of cases notified was almost exactly the same as that notified in the preceding year, 648 as against 644. It is not possible to be dogmatic regarding the incidence of the disease, but there is some evidence to support the view that a peak has been reached and that although it is not yet on the decline, it is no longer on the increase.

57. *Leprosy*—The number of cases reported and admitted to the leprosarium remained fairly steady as has been so for the last five or six years. More cases now seen are, however, in the earlier age groups which seems to indicate improved case-finding and thus better chances of cure.

58. *Venereal Disease*—The number of cases of gonorrhoea showed some increase, but this was probably not of any great significance. Most of these cases were reported from the port areas of Suva and Lautoka. Only two cases of syphilis were reported.

#### VITAL STATISTICS

59. Fuller details regarding vital statistics are given in an appendix to this report and are also available in the report of the Registrar-General, but certain statistics are worthy of record in this section.

60. The crude birth rate per thousand of population was 39, that for Fijians being 37 and Indians 43.

61. The crude death rate was 6.5, that for Fijians being 7.1 and for Indians 6.4.

62. The infant mortality rate continued to fall and was recorded at 36.06 per thousand live births for all races or 31.64 for Fijians and 40.40 for Indians.

63. It is of some interest to compare these figures with those of ten years ago. In 1950, the crude birth rate was calculated to be 37.11 for Fijians and 42.49 for Indians. The death rate was 12.31 for Fijians and 9.99 for Indians. The infant mortality rate was shown as 60.36 for Fijians and 57.80 for Indians.

64. Another set of figures of some interest are those showing deaths in the second year of life, i.e. the 1-2 years age group. These in 1950 were 153 Fijian infants and 35 Indian. In 1960 they were recorded as 75 Fijian and 39 Indian.

#### IV—HYGIENE AND SANITATION

65. The Director of Medical Services is *ex officio* Chairman of the Central Board of Health. This Board advises on all health matters and holds executive powers in areas where there are no local authorities. It also can exercise such powers should a local authority default in its duty. There are 26 local authorities of which 18 are concerned with rural areas and the remainder responsible for the administration of Suva City, Lautoka Town, Nadi International Airport and the townships of Nausori, Ba, Nadi, Levuka and Labasa.

66. The minutes of meetings of the local authorities are sent to the Secretary of the Central Board of Health and advice is given by the Board on all matters referred to it. All requests for legal aid are passed through the Board to the Law Officers of the Crown.

67. A great deal of work has been carried out during the year in revising health regulations, particularly those dealing with hotels and eating houses and those concerned with pure food.

68. The health staff of all local authorities, except the City of Suva, are employed by the Medical Department and seconded to the various authorities as is found necessary for carrying out the duties laid down under the public health legislation.

## V—SEAPORT AND AIRPORT HEALTH AND QUARANTINE

69. The only ports of entry for shipping from malarious countries are Suva and Lautoka and for aircraft, are at Nadi and Laucala Bay although special arrangements can be made for aircraft landing at Nausori. Levuka is a port of entry for shipping from non-malarious areas.

70. Medical Officers of Health are available at each of these ports together with a complement of Health Inspectors and Assistant Health Inspectors. In addition to normal port health duties this staff is also engaged in anti-mosquito measures as the territory being free from anopheline mosquitoes it is essential to maintain this freedom. Special measures are also necessary to control *Aedes Egypti* which are indigenous in the islands.

71. The need for special vigilance to ensure the exclusion of anopheles mosquito is frequently not understood by a number of persons, but there is no doubt that if the vector of malaria were to establish itself the disease would be rife as the reservoir of parasites is present following service of Fiji military forces in malarious countries.

## VI—HOSPITALS AND DISPENSARIES

72. The centres available for the treatment of the sick remained at—(a) 45 dispensaries, in the charge of Assistant Medical Officers, located at centres of populations, both rural and urban, throughout the Colony. (b) 14 rural hospitals, all except one, being administered by Assistant Medical Officers, situated at points convenient for the collection of patients who require treatment from the immediate environs or from out-lying dispensaries. (c) 4 divisional hospitals, including the specialist hospital at Suva, situated at the divisional centres and drawing their patients either from the immediate surroundings or from rural hospitals if greater facilities for diagnosis and treatment were required than were available at the latter. (d) Specialised hospitals for tuberculosis, leprosy and mental cases. The actual locations of hospitals and dispensaries is shown at Appendix II (a)

73. The size of the rural hospitals varies from 52 to 9 beds. They provide accommodation for patients the diagnosis of whose condition can be made clinically and who require only short-term treatment. They are also useful in providing accommodation for convalescent cases from the larger divisional hospitals. It is hoped to provide a simple form of X-ray apparatus and small laboratory at some of these hospitals situated at foci of larger population in order to limit the amount of travelling required of patients to major centres and also relieve the pressure on these larger units. Savusavu, Taveuni and Rotuma are those most likely to be so equipped initially.

74. Of the 4 divisional hospitals, the Colonial War Memorial Hospital, Suva, is the specialist centre for the Colony. The specialist staff consists of a physician, surgeon, obstetrician/gynaecologist, anaesthetist, ophthalmologist, radiologist and laboratory facilities are available from the Central Laboratory which is within the precincts of the hospital and under the control of a pathologist. The hospital also functions as a training centre for medical and nursing students and as a divisional hospital for the central division. A very high standard of work was maintained and a number of improvements to the hospital facilities were made during the year. Plans for a new, much needed, out-patients department and operating theatre block are now complete and it is hoped to start building in 1961 from funds made available from a Colonial Development and Welfare grant.

75. The next largest hospital is that at Lautoka. This is an old-fashioned wooden building with limited facilities. There is considerable local feeling that it should be replaced by a more modern structure, particularly as it caters for a fairly large concentration of population in the Western Division. Unfortunately funds are not at present available for such a major undertaking, although there are hopes of money being found in connexion with the next development plan. However, a considerable amount of maintenance work was undertaken on the building during the year and there has been a most marked improvement in appearance. The two most deficient sections in the hospital at present, are the out-patients' department and the children's ward. A surgeon, who also acts as medical specialist, is stationed at the hospital and he is supported by a staff of Medical Officers and Assistant Medical Officers. The hospital is also a training centre for nurses. Despite the difficulties of running this hospital, excellent work was achieved by all members of staff.

76. The Labasa and Levuka hospitals functioned satisfactorily during the year. These hospitals are also of old design, but can be adapted to cover requirements for some little time yet. New Sisters' quarters are being erected at the Labasa hospital which will lead to greater contentment amongst the senior nursing staff whose present accommodation is far from adequate, but improved quarters for Assistant Medical Officers is urgently required.

77. Specialized institutions are: The Tuberculosis hospital at Tamavua, the Leprosy hospital at Makogai and St. Elizabeth Home, Suva, the Mental Hospital, Suva. Details are given at Appendices III, VI, VII and V.

## VII—DENTAL DIVISION

78. The Dental Division of the Department has its headquarters at Suva and is under the control of a Senior Dental Officer. The department fulfils three main functions:—

- (1) Training of dental personnel
- (2) Provision of dental treatment, particularly to children of school age
- (3) Dental Health education and preventive dentistry.

Details of the work can be found at Appendix VIII.

### VIII—LABORATORY DIVISION

79. The Central Laboratory is under the control of the Pathologist and specimens are sent to it from all medical units in the Colony as well as from some outside territories. A wide range of investigations can be carried out and apart from virology, there are few occasions when help from larger laboratory centres is necessary. The Pathologist is also responsible for a large proportion of the medico-legal work of the Colony, a task which is most time consuming. A blood bank is now firmly established as part of the laboratory service. Fuller details of the laboratory work undertaken is given at Appendix IX.

### IX—NUTRITION

80. The nutritional research and much of the education on the subject of students and the public is carried out by the staff of the Nutrition Section of the South Pacific Health Service. Unfortunately, personnel has been difficult to obtain and the staff depleted by marriage, thus the continuity of the work has suffered to some extent. However, training of assistant dietitians has continued without interruption and the Home Science Extension teacher has travelled widely both inside and outside the territory.

81. The rationing of medical institutions is supervised by a Supervising Dietitian on the staff of the Medical Department. She advises on ration scales, purchases, special diets, etc., and is responsible for the work of the housekeeper/dietitians at each of the major hospitals. She also advises on rationing of rural hospitals.

82. There was useful collaboration during the year between the Nutritionists and the Women's Interests Officer.

### X—TRAINING

83. The training of Assistant Medical Officers and Assistant Dental Officers continued at the Central Medical School. Details regarding the number of students in training and their countries of origin are given in an appendix to this report, together with other relevant information concerning the School. The first post-graduate course in public health at the Nuffield Department of Preventive and Social Medicine was successfully completed during the year. The course was of six months duration and candidates, all of those attending being successful, obtained the Certificate of Public Health.

84. The annual clinical and social survey of an island population, carried out by the final year students with attendant staff, was this year in Matuku, Lau. Weekly broadcasts to Assistant Medical Officers on special medical subjects over the Posts and Telegraphs Department's network continued and the Council of the Assistant Medical Officers' Association organized, for the third year in succession, an excellent seminar, the subject this year being Maternal and Child Health.

85. At the Central Nursing School at Tamavua there were 159 student nurses in training out of which 133 were taking the course under the local curriculum and 26 under the New Zealand curriculum. At the school at Lautoka, 78 were in training on the local curriculum and 20 were in training at the Ba Mission Hospital. Of the total number of final year students 60 graduated on the local curriculum and 3 obtained the New Zealand registrable qualifications.

86. Other courses of study for Assistant Health Inspectors, Pharmacists, Radiographers, Laboratory Technicians, Dietitians, continued and a course for Assistant Physiotherapists started at the beginning of the year. A new building as a training centre for Assistant Health Inspectors was completed during the year in association with the Nuffield Department of Preventive and Social Medicine. Arrangements were completed for starting a course for Health Inspectors at a higher level in 1961 and recognition of this training has been given by the Royal Society for the Promotion of Health.

### XI—FAMILY PLANNING

87. Family planning clinics established at Suva, Lautoka, Labasa, Nailaga, Nadi, Savusavu and Sigatoka, continued to function and advice was also available at Wainibokasi, Taveuni, Wainikoro and Levuka. Two thousand six hundred and forty people attended the clinics during the year. At Suva, the clinic advice was also available regarding sub-fertility and at the other clinics those seeking such advice were referred to appropriate specialist staff.

### XII—DEPARTMENTAL VESSELS

88. A number of vessels are maintained and controlled by the Medical Department, amongst which are the following:—

The 42-ton a.k. *Vuniwai* used chiefly for carriage of staff on inspection and transfer, the transport of patients, particularly those suffering from tuberculosis and leprosy, and for the distribution of medical supplies. The vessel was also used in times of emergency to carry foodstuffs and, on occasions, for the transport of special teams on survey or other research work.

The a.k. *Makogai*, as her name indicates, is the vessel used as transport for the Leprosy Settlement on the island of Makogai and was used to convey stores, staff, visitors and discharged patients between Makogai, Viti Levu and Levuka.

The launch *Eileen*, also based on Makogai, was used mainly for the collection of copra from various points on the island, in fishing expeditions for patients and staff and provides communication between Makogai and Levuka.

The launch *Vuniwai-ni-Toba* was used for purposes of giving pratique to vessels arriving in Suva harbour, for fumigation and deratisation duties and for short journeys to neighbouring islands including weekly visits to the quarantine islands of Makuluva and Nukulau.

The *Adi Makereta*, which was based formerly at Wainibokasi, was transferred to Labasa for relatively short journeys within the reef. The Rewa river in which she formerly navigated has now become so silted that she was unable to fulfil her proper function.

89. Various motorized punts are either in use or on order for river and close coastal work. The annual grant given to the Department by the Colonial Sugar Refining Company for child welfare work is being used, with the Company's permission, for the purchase of more of these vessels for transport of Health Sisters and Assistant Medical Officers.

### XIII—PHILANTHROPIC ORGANIZATIONS

90. *New Zealand and Fiji Lepers Trust Board*—The Fiji Board, under the Chairmanship of Sir Hugh Ragg, continued to disburse funds allocated to Fiji by the parent body in New Zealand. A generous allocation—this year amounting to £NZ.9,500 was made available, and very sincere thanks are due to Mr. P. J. Twomey, M.B.E., J.P., the Secretary of the New Zealand Board for his tireless efforts; to the other members of the Board for their support and the people of New Zealand for their generosity.

91. The money is used to provide grants for those ex-leprosy patients who may need assistance and also for a variety of capital works on Makogai and at St. Elizabeth Home.

92. *War Memorial Anti-Tuberculosis Fund*—This Fund, which accumulated as a result of voluntary contributions, is administered by a Board of Trustees of which Sir Hugh Ragg is the Chairman and Mr. W. E. Donovan, I.S.O., K.S.G., is Secretary. Funds have been made available for buildings and equipment used in the campaign against tuberculosis. The general expenses for the B.C.G. vaccination campaign are also being borne by the Fund.

93. *British Red Cross Society*—The Fiji Branch, under the Presidency of Lady Maddocks and the Directorship of Mr. L. R. Martin, continued its activities during the year and gave great assistance to the Department. The services rendered covered a wide range and included divisional therapy and mobile libraries for hospital patients, a group for care of handicapped children and gifts of children's clothing, toys and special equipment.

94. *St. John Ambulance Brigade and Association*—First Aid and Home Nursing classes continued throughout the year and the enthusiasm of members was maintained. Personnel from the Brigade continued to give valuable service in manning ambulances at the Colonial War Memorial Hospital during the night hours.

95. *Home of Compassion*—The Home of Compassion staffed by Marist Sisters accepts aged ladies who, for some reason or another, require some degree of nursing care. The institution is excellently run and fulfils a very real need.

96. *The Cottage Home*—This home for aged people is supported by public subscription and also is well organized and of great importance to the welfare of the elderly.

97. *Crippled Children's Association*—A Crippled Children's Association under the Presidency of Dr. Sahu Khan was formed during 1959 with branches in Lautoka and Suva. The aim of the Association is to arrange for treatment of crippled children, when this is possible, assist in rehabilitation and provide various aids and appliances where these are necessary.

98. *Royal New Zealand Air Force—Mercy Flights*—Again tribute must be paid to the officers and men of the Royal New Zealand Air Force, who, from the flying-boat base at Laucala Bay, have continued to give invaluable service in times of emergency. Calls upon the Air Force to pick up seriously ill patients from the remoter islands or to drop supplies have met with immediate response and the mercy flights have been carried out with characteristic efficiency and cheerfulness.

### XIV—METEOROLOGY

99. Summaries of the meteorological observations for 1960 are given at Appendix XVII. For these, I am indebted to the Meteorological Officer at Laucala Bay, Suva.

P. W. DILL-RUSSELL,  
Director of Medical Services.

APPENDIX I  
DEPARTMENTAL ESTABLISHMENT

	1960
<b>1. MEDICAL AND ADMINISTRATIVE SECTION—</b>	
Director of Medical Services .. .. .	1
Deputy Director of Medical Services .. .. .	1
Secretary .. .. .	1
Senior Medical Officers .. .. .	4
Physician Specialist .. .. .	1
Surgeon Specialist .. .. .	1
Surgeon .. .. .	1
Medical Officers .. .. .	15
Ophthalmologist .. .. .	1
Radiologist (1) Pathologist (1) .. .. .	2
Anaesthetist .. .. .	1
Gynaecologist/Obstetrician .. .. .	1
Senior Dental Officer (1) Dental Officer (1) .. .. .	2
Assistant Medical Officers .. .. .	131
Assistant Dental Officers .. .. .	12
Physiotherapists .. .. .	2
<b>2. NURSING SECTION—</b>	
Nursing Superintendent .. .. .	1
Matrons and Assistant Matrons .. .. .	5
Sisters in Charge .. .. .	4
Nursing Sisters (53) Health Sisters (12) .. .. .	65
Principal (1) Tutors (6) Nursing School .. .. .	7
Nurses .. .. .	400
<b>3. TECHNICAL SECTION—</b>	
Laboratory Superintendent .. .. .	1
Chief Laboratory Assistant .. .. .	1
Laboratory Assistants .. .. .	13
Chief Health Inspector .. .. .	1
Health Inspectors (10) Assistant Inspectors (Health and Mosquito (66) ) .. .. .	76
Chief Pharmacist and Medical Storekeeper .. .. .	1
Pharmacists (2) Assistants (8) .. .. .	10
Radiographers (3) Assistant Radiographers (5) .. .. .	8
Supervising Dietitian .. .. .	1
Dental Hygienist (1) Assistant Dental Hygienists (7) .. .. .	8
Assistant Dental Mechanics .. .. .	3
<b>4. CLERICAL SECTION—</b>	
Departmental Accountant .. .. .	1
Clerical Staff .. .. .	56
<b>5. SUPERVISORY SECTION—</b>	
Head Attendant, Mental Hospital .. .. .	1
Assistant Head Attendant (1) Orderlies, Mental Hospital (22) .. .. .	23
Caretaker, Quarantine Island .. .. .	1
Storekeepers and Storemen .. .. .	6
Assistant Dietitians and Housekeepers (8), Laundry Supervisors (2) Head Seamstress (1) .. .. .	11
Subordinate Staff .. .. .	628
<b>6. CENTRAL MEDICAL SCHOOL—</b>	
Principal .. .. .	1
Medical Officer .. .. .	1
Anatomy and Surgery Lecturer .. .. .	1
Science Lecturer (1) Chemistry Lecturer (1) .. .. .	2
Assistant Lecturer .. .. .	1
Medical Officer (Lecturer in Public Health) .. .. .	1
Dental Officers .. .. .	2
Assistant Medical Officer .. .. .	1
Senior Mistress .. .. .	1
Housekeeper (1) Clerical Staff (3) Subordinate staff (22) .. .. .	26
<b>7. FIJI LEPROSY HOSPITAL—</b>	
Senior Medical Officer .. .. .	1
Clerical Staff .. .. .	2
Overseer (1) School teachers (2) Constables (5) .. .. .	8
Subordinate Staff .. .. .	40
Nursing Sisters .. .. .	23
Assistant Nursing Sisters .. .. .	11
<b>8. CENTRAL MEDICAL RESEARCH LIBRARY—</b>	
Assistant Librarian .. .. .	1
Clerical Staff .. .. .	1

## APPENDIX II (a)

## HOSPITALS AND DISPENSARIES

	<i>Beds</i>
<b>MAIN AND SPECIALIST HOSPITALS—</b>	
Colonial War Memorial Hospital, Suva .. .. .	335
Tamavua Tuberculosis Hospital, Suva .. .. .	362
Mental Hospital, Suva .. .. .	156
Fiji Leprosy Hospital, Makogai .. .. .	622
<b>DISTRICT HOSPITALS—</b>	
Lautoka .. .. .	168
Labasa .. .. .	104
Levuka .. .. .	42
<b>SUBSIDIZED HOSPITALS—</b>	
Methodist Mission Hospital, Ba .. .. .	41
<b>RURAL HOSPITALS—</b>	
Nailaga, Ba .. .. .	20
Wainibokasi .. .. .	52
Waiyevo, Taveuni .. .. .	56
Vunidawa .. .. .	20
Koromumu, Sigatoka .. .. .	33
Vaileka, Rakiraki, Ra .. .. .	18
Nadi .. .. .	36
Savusavu .. .. .	33
Vunisea, Kadavu .. .. .	26
Lomaloma, Lau .. .. .	16
Rotuma .. .. .	16
Lakeba, Lau .. .. .	19
Matuku .. .. .	9
Nabouwalu, Bua .. .. .	30

See Appendix II (b) for details of out-patients.

See Appendix II (b) for details of in-patients.

## DISPOSITION OF URBAN AND RURAL DISPENSARIES

*In Suva—*

Suva Goal	Police Station
Samabula	Nabua
Nuffield Clinic	

*Central Division (under Divisional Medical Officer)—*

Beqa Island	Nausori Clinic
Korovou, Tailevu North	Navua
Lodoni	Nayavu
Lomanikoro	Korovisilou
Mokani	Viria
Namosi	Laselevu

*Eastern Division (under Divisional Medical Officer)—*

Gau	Koro
Kabara	Moala
Ono-i-lau	Yaro, Kadavu

*Western Division (under Divisional Medical Officer, Lautoka)—*

Korolevuiwai	Natuatuacoko
Nadarivatu	Naviti, Yasawa
Nadi Airport (administered from Suva)	Tau
Namarai	Nanukuloa
Tavua	Nasau
Vatukoula	

*Northern Division (under Divisional Medical Officer, Labasa)—*

Dreketi	Visoqo
Lekutu	Wainunu
Naduri	Rabe Island Community
Kioa Island	Saqani
Natewa	Korotasere
Tukavesi	

Total Rural Dispensaries—45.

See Appendix II (b) for details of out-patients.



## APPENDIX II (b)

The following tables show the analyses of in-patients and out-patients for the year 1960 :—

## 1. CENTRAL AND DISTRICT HOSPITALS ADMISSIONS—RACIAL DISTRIBUTION

Race	C.W.M. Hospital	Tamavua	Lautoka	Labasa	Levuka	Totals
Fijians .. .. .	3,259	474	1,311	577	335	5,956
Indians .. .. .	5,271	76	4,147	1,506	51	11,051
Europeans and Part-Europeans ..	912	17	194	91	47	1,261
Chinese and Others .. .. .	861	87	255	25	46	1,274
Totals .. .. .	10,303	654	5,907	2,199	479	19,542

## 2. OUT-PATIENTS THROUGHOUT THE COLONY

Race	C.W.M. Hospital	3 District Hospitals	14 Rural Hospitals	Rural Dispensaries	Totals
Fijians .. .. .	50,329	29,238	64,029	183,761	327,357
Indians .. .. .	78,110	67,524	71,392	103,881	320,907
Europeans .. .. .	2,409	2,575	9,606	23,017	52,474
Others .. .. .	10,004	4,863			
Totals .. .. .	140,852	104,200	145,027	310,659	700,738

## 3. GENERAL AND RURAL HOSPITALS—ADMISSIONS

Hospitals	No. of Beds	Daily average In-patients	Admissions
Colonial War Memorial Hospital ..	335	269	10,303
Tamavua Tuberculosis Hospital ..	362	336	654
Three District Hospitals .. .. .	314	286	8,585
Fourteen Rural Hospitals .. .. .	391	218	8,817
Totals .. .. .	1,402	1,106	28,359

APPENDIX III  
TUBERCULOSIS DIVISION—1960

Tamavua Hospital continued as the main tuberculosis hospital. Domiciliary treatment has been extended wherever possible.

2. The B.C.G. campaign continued with also a follow-up by the Mobile X-ray Unit to investigate the Heaf positive reactors.

3. *Tamavua Hospital*—Comparative figures for the years 1951 to 1960 are set out below:—

	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
In-Patients—December 31st each year .. ..	220	241	270	304	304	320	325	350	341	333
Admissions .. .. .	220	257	360	487	513	482	705	568	534	654
Discharges .. .. .	118	137	248	373	465	392	412	464	517	630
Deaths (all causes) .. .. .	86	46	53	42	27	29	26	13	15	24
Percentage Deaths to Discharges .. .. .	73	33	21	11	6	7	6	3	2.9	3.8
Out-Patients (for full review) .. .. .	832	1,285	1,756	2,048	2,227	2,790	3,620	3,302	3,784	4,885

Admissions and discharges by age groups were:—

Age	ADMISSION			DISCHARGE		
	Male	Female	Total	Male	Female	Total
0-9 ..	46	62	108	50	33	83
10-19 ..	51	56	107	41	39	80
20-29 ..	72	95	167	70	92	162
30-39 ..	49	37	86	57	44	101
40-49 ..	52	26	78	59	30	89
50-59 ..	36	22	58	38	21	59
60-69 ..	26	13	39	31	13	44
70-+ ..	9	2	11	11	1	12
Totals ..	341	313	654	357	273	630

Admissions and discharges by race were:—

Race	Admission	Discharge
Fijians .. ..	474	489
Indians .. ..	76	61
Europeans .. ..	4	6
Part-Europeans .. ..	13	8
Rotumans .. ..	20	16
Chinese .. ..	7	7
Others .. ..	60	43
Total .. ..	654	630

4. There were 24 deaths in hospital—3 died from non-tuberculous causes. Of the remaining 21, 11 were females, 10 males and by race, 14 were Fijians, 6 Indians and 1 Gilbertese. Most of the Fijian females were middle-aged who died within a few days of admission in an advanced stage. Two young Fijian males died of cor pulmonale from long-standing pulmonary tuberculosis. There were 4 deaths from miliary and meningeal tuberculosis in children aged 5 months, 2 years and 3 years, the fourth case being a Fijian youth aged 17 years.

5. At the close of the year there were 29 cases still awaiting admission—most of them were already in other hospitals and had commenced treatment.

6. Of the 654 admissions, 30 were "relapse" cases for readmission and 63 were admitted for such reasons as surgery or following surgical treatment or for continuation of treatment which had become impossible on a domiciliary basis.

7. The average number of beds occupied daily was 336.

8. At the out-patients department, 4,885 patients attended for full assessment and 359 patients on domiciliary treatment were supervised. Some 372 cases received medical attention for non-tuberculous causes. Two hundred and seventy-eight patients were transferred to the Health Office, Suva and 36 to Nabua Dispensary where they received their domiciliary treatment and supervision.

9. Despite this transfer of work, the amount done in the out-patients department increases yearly.

10. Eight thousand one hundred and forty-six X-rays were taken at the hospital and 3,760 films were received from other centres, most for review. As the Radiologist was on leave for a portion of the year, most of the films were read at Tamavua. On his return, 661 films were referred to him for an opinion. Of these 661, he found 41 consistent with the appearance of tuberculosis. The X-ray Registry, at the end of the year, had 22,231 film envelopes filed for reference.

11. Ten thousand one hundred and twenty-nine Tamavua Hospital reports were sent to general practitioners and Government medical stations.

12. Minor operative measures were carried out at Tamavua Hospital while major surgical procedures were performed at the Colonial War Memorial Hospital. These included:—

Lobectomy .. .. .	7
Pneumonectomy .. .. .	6
Thoracoplasty .. .. .	1
Apicolysis with Plombage .. .. .	2
Decortication .. .. .	2

13. The Dental Clinic was attended by 281 patients on whom 465 procedures (fillings, extractions and miscellaneous treatments) were carried out.

14. The occupational therapy department was fully used by patients: weekly film shows and concerts were given in the recreation hall.

15. The hospital plantation produced crops to the value of £774; pork worth £472, eggs and poultry to the value of £260 were delivered from the farm.

16. *Western Division*—Lautoka Hospital is the centre for tuberculosis in the Western Division. Domiciliary treatment has been extended further. At the end of 1960, 336 patients were receiving such treatment, as compared with 232 in 1959 and 80 in 1958.

#### CASES TREATED AS IN-PATIENTS AT LAUTOKA HOSPITAL

	Fijians		Indians		Europeans		Others		Total		
	M	F	M	F	M	F	M	F	M	F	M/F
Admissions .. .. .	42	37	23	13	1	..	4	..	70	50	120
Discharges .. .. .	17	23	18	10	1	..	2	..	38	33	71
Deaths .. .. .	3	1	..	..	..	..	1	..	4	1	5
Transfer to Tamavua Hospital .. .. .	4	1	2	1	..	..	..	..	6	2	8
Transfer to Rural Hospital .. .. .	3	1	2	1	..	..	..	..	5	2	7
Remaining in Lautoka Hospital .. .. .	15	11	1	1	..	..	1	..	17	12	29

17. During the year, there were 1,886 reviews and/or full assessments of patients, the 1,886 cases included 901 Fijians, 855 Indians, 81 Europeans and 49 other races.

18. Five hundred and ninety-three newly born babies were vaccinated with B.C.G.

#### PATIENTS ON DOMICILIARY TREATMENT AT VARIOUS STATIONS UP TO 31st DECEMBER, 1960

	Fijians	Indians	Europeans	Others	Total
Lautoka .. .. .	58	25	6	6	95
Koromumu .. .. .	27	9	.....	.....	36
Nailaga .. .. .	16	18	.....	.....	34
Vatukoula .. .. .	25	.....	.....	3	28
Nadi .. .. .	22	7	.....	.....	29
Penang .. .. .	2	9	1	.....	12
Ba Dispensary .. .. .	5	8	.....	1	14
Yasawa .. .. .	25	.....	.....	.....	25
Natuatuaoko .. .. .	7	.....	.....	.....	7
Nadarivatu .. .. .	2	.....	.....	.....	2
Nanukuloa .. .. .	18	.....	.....	.....	18
Tavua .. .. .	4	3	.....	1	8
Namarai .. .. .	5	.....	.....	.....	5
Nasau .. .. .	2	.....	.....	.....	2
Tau .. .. .	4	4	.....	.....	8
Nadi Airport .. .. .	6	1	1	.....	8
Korolevu .. .. .	5	.....	.....	.....	5
Total .. .. .	233	84	8	11	336

19. *Northern Division*—In the Northern Division, Labasa Hospital is the main centre for treatment. Domiciliary treatment is also offered where possible, but the difficulties of supervision are greater than in the Western Division. The smaller rural hospitals at Waiyevo, Savusavu and Nabouwalu also took their share of patients. Fifty-three patients were treated at Labasa Hospital during the year.

20. *Eastern Division*—In the Eastern Division, 37 cases were notified in 1960—30 of these were notified in Levuka, the remaining 7 from five different areas. In addition, there were 5 old cases which "flared up" and required further treatment.

21. *Tuberculosis Campaign*—The campaign continued on much the same lines as in the previous year. A Senior Medical Officer was appointed as whole-time Tuberculosis Control Officer to be responsible for the preventive and public health aspects of the campaign working in close liaison with the Medical Superintendent, Tamavua Hospital. This officer acted as Medical Superintendent, Tamavua Hospital during part of the year during the absence on leave of the substantive officer.

22. Senior Assistant Medical Officer Macu Salato, who has been associated with the campaign for years was awarded a medal by the Chest and Heart Association for outstanding work in the field of tuberculosis.

23. The B.C.G. vaccination teams completed their work in Vanua Levu and Lau groups (commenced in 1959) and returned to Viti Levu to continue there.

24. During 1960, 31,496 children and young adults were tested and 20,277 received B.C.G. vaccine.

25. The totals for the years 1958, 1959 and 1960, were 81,869 tested and 59,151 given B.C.G. vaccine.

26. The Mobile X-ray Unit operated throughout the year in Viti Levu—13,217 pictures being taken.

27. Analysis by age groups was :—

Age Group	Total X-Rayed	Recalls ? PTB	Percentages of Recalls
0-4 .. ..	188	19	10.1
5-9 .. ..	438	14	3.2
10-14 .. ..	1,130	28	2.48
15-19 .. ..	2,670	34	1.27
20-24 .. ..	2,343	30	1.28
25-29 .. ..	1,819	18	.99
30-34 .. ..	1,258	29	2.3
35-39 .. ..	1,194	23	1.93
40-44 .. ..	737	34	4.61
45-49 .. ..	666	21	3.15
50-54 .. ..	293	18	6.14
55-59 .. ..	257	14	5.45
60-64 .. ..	145	2	1.38
65+ .. ..	79	6	7.59
Total .. ..	13,217	290	2.19

28. Analysis by race and sex was :—

Race	Sex		
	Male	Female	Total
Fijians ..	4,855	2,288	7,143
Indians ..	3,357	471	3,828
Others ..	1,631	615	2,246
All Races	9,843	3,374	13,217

29. Included in these figures are 915 Heaf Positive cases, recommended for X-ray during the B.C.G. campaign. Of the 915, 80 (8.74%) were recalled for full investigation.

## APPENDIX IV

## COLONIAL WAR MEMORIAL HOSPITAL, SUVA

The Colonial War Memorial Hospital is the main hospital of the Colony. It provides the specialist treatment and is the teaching hospital for medical students from the Central Medical School and student nurses from the Central Nursing School.

2. Development of the Colonial War Memorial Hospital continues. A second air-conditioned theatre was installed in one of the out-patient rooms and an office converted to an anaesthetic room.

3. The Hospital Week Board of Trustees continued to help with developments which directly benefit the patients. Further track screening was installed and orders have been placed for screening for the beds in the Free Maternity Annexe.

4. *Out-Patient Departments*—These departments see more and more patients each year and the staff have been working in very difficult circumstances.

TABLE I

## SUMMARY OF OUT-PATIENTS ATTENDANCES—C.W.M. HOSPITAL

Clinic	Fijians	Indians	Europeans	Others	Total
General Medical .. .. .	662	1,430	89	169	2,350
Diabetic .. .. .	153	820	9	31	1,013
Acute Rheumatic .. .. .	100	1,143	1	83	1,327
General Surgical .. .. .	974	1,171	182	283	2,610
Orthopaedic .. .. .	751	933	116	163	1,963
Gynaecology .. .. .	365	817	59	105	1,346
Ophthalmology .. .. .	2,343	4,560	6	733	7,742
Physiotherapy .. .. .	81	204	313	76	674
Family Planning .. .. .	146	1,314	....	35	1,495
Ante-natal : C.W.M. Hospital .. .. .	5,036	9,590	....	892	15,518
Wainibokasi .. .. .	1,908	1,524	....	29	3,361
Civil Servants and Paying Out-Patients .. .. .	2,852	3,715	1,013	813	8,393
Free Out-Patients .. .. .	34,958	50,889	621	6,592	93,060
	50,329	78,110	2,409	10,004	140,852

5. The ante-natal clinic continues to do its work in very inadequate converted buildings in Brown Street. Another building there has been converted to a Special Clinic where family planning consultations are held.

6. *In-Patients*—The figures in Table II show an increase in all departments. In spite of the larger number of admissions the bed occupancy was less than 1959. This in a large measure was due to families being urged to take the responsibility for their chronic sick at home thus relieving hospital beds for the more acutely ill.

TABLE II

Clinic	Fijians	Indians	Europeans	Others	Total
General Hospital .. .. .	1,779	2,457	623	257	5,116
Free Maternity Hospital .. .. .	734	1,354	....	145	2,233
Paying Maternity Hospital .. .. .	40	206	153	165	564
	2,553	4,017	776	567	7,913

Of these the following were newly born infants :—

Clinic	Fijians	Indians	Europeans	Others	Total
Free Maternity Hospital .. .. .	672	1,069	....	126	1,867
Paying Maternity Hospital .. .. .	34	185	136	168	523
	706	1,254	136	294	2,390

7. Surgical work carried out was as follows :—

Total number of patients for Main Operating Theatre ..	2,228
Total Number of patients for Minor Operating Theatre later converted to Theatre 2 .. .. .	133
Total number of patients for Plaster Room .. .. .	1,149
Grand Total of patients seen by this Department ..	3,510
Total number of operations on the above patients including Plaster Room patients .. .. .	3,669

## 8. Analysis of Specific Operations :—

A.— <i>Gastro-Intestinal</i> .. .. .	Total	345
Partial Gastrectomy .. .. .		14
Gastro-enterostomy .. .. .		11
Trans-thoracic partial gastrectomy .. .. .		1
Gastro-jejunostomy .. .. .		2
Oesophago-jejunostomy .. .. .		1
Jejuno-jejunostomy .. .. .		1
Ileal resection .. .. .		1
Abdomino-perineal resection .. .. .		1
Rectosigmoidectomy .. .. .		3
Hemicolectomy .. .. .		2
Colostomy .. .. .		2
Closure of colostomy .. .. .		3
Repair perforated peptic ulcer .. .. .		9
Appendicectomy .. .. .		84
Strangulated Hernia .. .. .		10
Herniorrhaphy .. .. .		116
Laparotomy .. .. .		22
Vagotomy .. .. .		4
Bowel resection .. .. .		3
Excision Mesenteric cyst .. .. .		1
Ramstedts Operation .. .. .		1
Intussusception .. .. .		1
Freeing of Volvulus .. .. .		1
Insertion Souttars tube .. .. .		1
Recto-caecal repair .. .. .		1
Removal anal papilloma .. .. .		1
Incision pilonidal sinus .. .. .		2
Sigmoidoscopy .. .. .		2
Manual removal faeces .. .. .		1
Anal dilatation .. .. .		4
Tightening anal sphincter .. .. .		1
Fistula in ano .. .. .		14
Haemorrhoidectomy .. .. .		20
Injection Haemorrhoids .. .. .		4
B.— <i>Thoracic Surgery</i> .. .. .	Total	56
Trans-thoracic Diaphragmatic Hernia .. .. .		1
Eventration Diaphragm .. .. .		1
Oesophageal Transection .. .. .		1
Exploration Mitral Valve .. .. .		1
Ligation Patent Ductus Arteriosus .. .. .		1
Peri-cardinal Aspiration .. .. .		1
Lobectomy .. .. .		7
Pneumonectomy .. .. .		6
Thoracoplasty .. .. .		1
Birdcage .. .. .		2
Thoracotomy .. .. .		3
Decortication Lung .. .. .		2
Removal Neuro-fibroma Chest .. .. .		1
Removal Dermoid Cyst Chest .. .. .		1
Rib Resection .. .. .		2
Drainage Pneumothorax .. .. .		1
Drainage Empyema .. .. .		1
Drainage Pulmonary Abscess .. .. .		1
Re-insertion Inter-costal tubes .. .. .		5
Removal Inter-costal tubes .. .. .		2
Excision Gangrene Chest Wall .. .. .		1
Removal Bronchial Polyp .. .. .		1
Bronchoscopy .. .. .		13
C.— <i>Vascular Surgery</i> .. .. .	Total	9
Ligation Arterio-venous aneurysm .. .. .		1
Femoral Graft .. .. .		1
Embolectomy .. .. .		1
Varicose Veins .. .. .		6

D.— <i>Gynaecological Surgery</i> .. .. .	Total	921
Lower Segment Caesarean Section .. .. .		60
Classical Caesarean Section .. .. .		1
Wertheims Hysterectomy .. .. .		2
Abdominal Hysterectomy .. .. .		59
Vaginal Hysterectomy .. .. .		5
Laparotomy .. .. .		4
Ruptured Ectopic Gestation .. .. .		8
Repair Ruptured Uterus .. .. .		2
Removal Abdominal Pregnancy .. .. .		1
Oophorectomy .. .. .		37
Salpingectomy .. .. .		34
Ovarian Cystectomy .. .. .		18
Colpo-perineorrhaphy .. .. .		5
Repair Cervix .. .. .		2
Secondary Suture to Perineum .. .. .		4
Vulvectomy .. .. .		2
Removal Ovarian Mass .. .. .		2
Removal Tubal Mass .. .. .		1
Removal Labial Tumour .. .. .		1
Removal Vulval Cyst .. .. .		1
Removal Vaginal Cyst .. .. .		3
Incision Bartholins Abscess .. .. .		5
Tubal Ligation .. .. .		145
Myomectomy .. .. .		5
Ventro-suspension .. .. .		2
Shortening Round Ligament .. .. .		2
Insufflation Tubes .. .. .		1
Ant. Colporrhaphy .. .. .		5
Amputation Cervix .. .. .		2
Artificial Rupture of membranes .. .. .		1
Forceps Delivery .. .. .		1
Dilation and Curettage .. .. .		264
Insertion of Grafenberg ring .. .. .		3
Removal of Grafenberg ring .. .. .		10
Salpingogram .. .. .		30
Examination under anaesthesia .. .. .		10
Biopsy .. .. .		9
E.— <i>Ear, Nose and Throat Surgery</i> .. .. .	Total	188
Laryngoscopy .. .. .		10
Oesophagoscopy .. .. .		1
Tracheotomy .. .. .		6
Tonsillectomy .. .. .		77
Adenoidectomy .. .. .		3
Antral Puncture and Lavage .. .. .		20
Diathermy Papilloma Larynx .. .. .		2
Antral Polypectomy .. .. .		1
Diathermy Aural Polyp .. .. .		3
Sub-mucous Resection .. .. .		1
Nasal Polypectomy .. .. .		25
Diathermy Turbinates .. .. .		14
Reduction Fractured Nose .. .. .		6
Removal Foreign Body Nose .. .. .		4
Mastoidectomy .. .. .		3
Drainage Haematoma Ear .. .. .		2
Incision Growth Ear .. .. .		1
Removal Foreign Body Ear .. .. .		5
Aural Lavage .. .. .		1
Diathermy Papilloma .. .. .		1
Removal Tracheotomy Tube .. .. .		1
Biopsy .. .. .		1
F.— <i>Genito-Urinary Surgery</i> .. .. .	Total	192
Prostatectomy .. .. .		9
Suprapubic cystostomy .. .. .		10
Nephrolithotomy .. .. .		4
Pyelolithotomy .. .. .		2
Ureterolithotomy .. .. .		6
Transurethral Resection .. .. .		4
Repair Ruptured Urethra .. .. .		1
Orchidectomy .. .. .		1
Cystoscopy .. .. .		50
Retrograde Pyelogram .. .. .		13
Hydrocele .. .. .		43
Urethral Dilatation .. .. .		30
Circumcision .. .. .		8
Aspiration Haematocele .. .. .		2
Excision Filarial Tissue Scrotum .. .. .		4
Excision Filarial Tissue Penis .. .. .		4
Exploration Scrotal wound .. .. .		1

G.— <i>Plastic Surgery</i> .. .. .	Total	42
Skin Grafts .. .. .		20
Cleft Palate .. .. .		8
Hare Lip .. .. .		14
H.— <i>Thyroid Surgery</i> .. .. .	Total	19
Partial Thyroidectomy .. .. .		13
Excision Thyroid Tumour .. .. .		6
I.— <i>Neuro Surgery</i> .. .. .	Total	5
Lumbar Sympathectomy .. .. .		1
Ventriculogram .. .. .		1
Repair Meningocele .. .. .		2
Craniotomy .. .. .		1
J.— <i>Breast Surgery</i> .. .. .	Total	16
Radical Mastectomy .. .. .		5
Partial Mastectomy .. .. .		11
K.— <i>Radium Therapy</i> .. .. .	Total	9
Radium to Breast .. .. .		2
Radium to Cervix .. .. .		1
Radium to Arm .. .. .		1
Removal of Radium .. .. .		5
L.— <i>Minor Surgery</i> .. .. .	Total	330
Excision Parotid Gland .. .. .		4
Incision and Drainage Parotid Gland .. .. .		2
Excision Glands .. .. .		4
Excision Dermoid Cyst .. .. .		3
Excision Cysts .. .. .		27
Excision Sebaceous Cyst .. .. .		7
Excision Epithelioma .. .. .		1
Excision Lipoma .. .. .		8
Incision Abscess .. .. .		95
Incision Cellulitis .. .. .		1
Incision Gas Gangrene .. .. .		1
Excision Ulcer .. .. .		7
Excision Ganglion .. .. .		4
Excision Warts .. .. .		1
Drainage Haematoma .. .. .		2
Removal Nail .. .. .		5
Implantation Doca .. .. .		1
Removal Foreign Body .. .. .		8
Suture .. .. .		34
Remove Suture .. .. .		1
Exploration wound .. .. .		3
Wound Toilet .. .. .		8
Re-dressing to wound .. .. .		21
Biopsy .. .. .		37
Others .. .. .		45
M.— <i>Ophthalmic Surgery</i> .. .. .	Total	217
Lens Extraction .. .. .		110
Needling to Cataract .. .. .		11
Iridectomy .. .. .		11
Evisceration .. .. .		3
Enucleation .. .. .		7
Dacryocystectomy .. .. .		1
Glaucoma Drainage .. .. .		2
Irrigation Anterior Chamber .. .. .		2
Repair Ptosis .. .. .		2
Pterygium .. .. .		14
Plastic to Eyelids .. .. .		12
Entropion .. .. .		4
Carbolising Corneal Ulcer .. .. .		1
Sclerectomy .. .. .		2
Chalazion .. .. .		5
Correct Strabismus .. .. .		1
Probing Lachrymal Duct .. .. .		2
Removal Cyst Eyelid .. .. .		2
Suture Traumatic Wounds .. .. .		11
Removal of Suture .. .. .		1
Removal foreign body of eye .. .. .		2
Others .. .. .		11
N.— <i>Dental Surgery</i> .. .. .	Total	14



O.—Major Miscellaneous .. .. .	Total	37
Cholecystectomy .. .. .		29
Cholecysto-jejunostomy .. .. .		1
Exploration Biliary tract .. .. .		2
Partial Pancreatectomy .. .. .		1
Splenectomy .. .. .		2
Biopsy pancreas and liver .. .. .		1
Incision Liver abscess .. .. .		1
P.—Orthopaedic Surgery .. .. .	Total	120
Costotransversectomy .. .. .		4
Excision Paravertebral abscess .. .. .		2
Open Reduction Hip .. .. .		3
Other Open Reduction .. .. .		8
Leg Amputations .. .. .		10
Arm Amputations .. .. .		2
Forefoot Amputations .. .. .		4
Finger Amputations .. .. .		10
Toe Amputations .. .. .		6
Removal Tibia .. .. .		1
Removal Tarsal Bones .. .. .		3
Meniscectomy .. .. .		3
Sequestrectomy .. .. .		10
Drainage Osteomyelitis .. .. .		3
Tenotomy .. .. .		16
Manipulation .. .. .		6
Arthrodesis .. .. .		3
Arthroplasty .. .. .		1
Insertion Steinmans Pin .. .. .		3
Biopsy Bone .. .. .		2
Smith Petersen Pin and Plate .. .. .		6
Joint Aspiration .. .. .		4
Screwing of bones .. .. .		3
Stump Trimming .. .. .		4
Elevation Depressed Fracture Skull .. .. .		2
Elevation Depressed Fracture Zygoma .. .. .		1

9. *Non-Paying Maternity Department*—In the last two months of the year, patients were admitted to the newly constructed 14 bed addition to the Maternity Annexe. There were fewer deliveries during 1960 than in 1959 because only certain types of patients are admitted, the remainder being cared for as part of the domiciliary service.

10. *Domiciliary Service*—This year activity increased and 224 patients were booked for home confinement. The service has been extended to post-natal care and 141 patients were thus attended.

11. The Clinic at Wainibokasi is being used to a greater extent, two Obstetric Assistant Medical Officers visiting this hospital twice weekly.

TABLE III  
DELIVERIES

	Fijians	Indians	Others	Total
Total Number of Women delivered	671	1,098	128	1,897
Admissions .. .. .	734	1,354	145	2,233
Discharges .. .. .	742	1,340	146	2,228
Deaths .. .. .	.....	4	.....	4
Normal Labour .. .. .	281	290	50	621
Abnormal Labour .. .. .	390	808	78	1,276

TABLE IV  
BIRTHS AND DEATHS

	Fijians	Indians	Others	Total
Total Number of Infants born ..	683	1,118	129	1,930
Live Births .. .. .	672	1,069	126	1,867
Premature Births .. .. .	33	70	7	110
Multiple Births .. .. .	12	20	1	33
Stillbirths .. .. .	11	49	3	63
Neonatal Deaths .. .. .	16	32	2	50

TABLE V

## ABNORMALITIES

	Fijians	Indians	Others	Total
Anaemia (9G and under) ..	189	628	30	847
Pre-Eclamptic Toxaemia ..	17	56	3	76
Eclampsia .. .. .	....	3	....	3
Ante-partum Haemorrhage ..	13	26	8	47
Post-partum Haemorrhage ..	50	29	5	84
Forceps .. .. .	35	68	5	108
Caesarean Section .. ..	11	25	7	43
Breech Delivery .. .. .	20	24	3	47
Manual Removal of Placenta ..	10	6	....	16

12. The following comments are made concerning the 1960 figures :—

- (a) *Maternal Deaths*—Causes were acute liver necrosis (2), renal failure and post-partum haemorrhage.
- (b) *Still Births and Neo-natal Deaths*—The still birth rate was 32 per thousand, the same as 1959. The neo-natal death rate was almost double at 26 per thousand. Sixty per cent of these occurred in premature infants, facilities for which are not up to the standard of the hospital in general.
- (c) *Anaemia*—All patients with a haemoglobin of 10 gms or under were recorded and amounted to 45 per cent of all patients confined.

13. *Paying Maternity Annexe*—The Paying Maternity Annexe continued to give good service during the year. The numbers show a very small increase over 1959. Details are given in Table VI below :—

TABLE VI

	Fijians	Indians	Europeans	Others	Total
Admissions .. .. .	40	206	153	165	564
Discharges .. .. .	40	208	145	162	555
Normal Labours .. .. .	27	134	81	141	383
Abnormal Labours .. .. .	8	57	42	23	130
Still Births .. .. .	....	6	....	3	9
Neonatal Deaths .. .. .	1	3	....	....	4
Maternal Death .. .. .	....	1	....	....	1
Caesarean Sections .. .. .	2	7	7	2	18
Ante-partum Haemorrhage .. .. .	....	1	....	....	1
Post-partum Haemorrhage .. .. .	4	6	8	5	23
Manual Removal of Placenta .. .. .	....	....	....	1	1
Placenta Praevia .. .. .	1	1	....	....	2
Anaemia .. .. .	....	2	2	....	4
Toxaemia .. .. .	2	3	2	1	8
Hyperemesis .. .. .	2	....	....	....	2
Instrumental Delivery .. .. .	....	23	19	1	43
Persistent occipito-posterior .. .. .	1	7	8	1	17
Breech Presentation .. .. .	1	8	2	3	14
Prolapsed Cords .. .. .	....	2	....	1	3
Hydramnios .. .. .	....	1	....	2	3

14. *X-Ray Department*—This year again saw a steady increase in the work of the department. Special investigations have increased proportionately.

15. Details of patients are shown in Table VII below :—

TABLE VII

## X-RAY PATIENTS

	Fijians	Indians	Europeans	Others	Total
In-patients .. .. .	2,420	2,669	543	478	6,110
Out-patients .. .. .	4,080	3,398	1,156	847	9,481
	6,500	6,067	1,699	1,325	15,591

16. *Special Examinations—*

Aortogram .. .. .	1
Barium Enema .. .. .	54
Barium Swallow .. .. .	70
Barium Meal .. .. .	347
Bronchogram .. .. .	22
Cholecystogram .. .. .	87
Cystogram .. .. .	3
Encephalogram .. .. .	3
Pelvimetry .. .. .	50
Myelogram .. .. .	4
Salpingogram .. .. .	29
Screen Examination .. .. .	133
Intravenous Pyelogram .. .. .	148
Retrograde Pyelogram .. .. .	14
Splenogram .. .. .	3
Tomogram .. .. .	52
Ventriculogram .. .. .	3
Angiogram .. .. .	2

17. *Ambulances*—A twenty-four hour ambulance service is maintained at the Colonial War Memorial Hospital using three modern ambulances. There has been a liaison with the St. John's Ambulance Brigade who provide volunteer drivers and first-aiders in addition to the six drivers paid by Government.

18. *Laundry*—In 1960 the total number of articles laundered was 1,838,903 an increase of 98,756 articles. Plans have been passed for the enlargement of the laundry and for streamlining the flow of articles during processing. This will enable the laundry to keep up with the increased amount of work. It is hoped to start work on this in 1961.

19. During 1960 waste hospital food was used to feed chickens from day old to maturity. Five hundred and forty-four pounds of chicken were used by the patients and 350 dozen eggs at no cost to Government.

APPENDIX V  
MENTAL HOSPITAL

The number of patients again increased during the year.

2. The patients' comfort fund had a credit of £67 10s. 3d. after purchasing a Bell and Howell sound projector. Pictures are shown on an average of twice weekly in each ward. The patients enjoy the films.

3. Details of staff are as follows :—

Medical Superintendent (part-time)  
Psychiatrist—part-time as from 1/12/60  
Assistant Medical Officer (part-time)  
Head Attendant  
Assistant Attendant  
12 Female Fijian Orderlies  
2 Female Samoan Orderlies  
10 Male Fijian Orderlies  
5 Male Samoan Orderlies  
1 Male Fijian Cook  
2 Male Indian Cooks  
1 Male Fijian Kitchen Hand  
2 Female Fijian Laundresses

4. The following table shows admissions and discharges :—

Remaining in hospital at the end of 1959 .. .. .	212	
Admitted during 1960 .. .. .	107	
	319	
Discharged during 1960 .. .. .	10	
Absent on trial during 1960 .. .. .	70	
Died in Institution during 1960 .. .. .	4	
Remaining in Institution at the end of 1960 .. .. .	235	
	319	

5. The following table shows the length of residence of patients remaining in the Mental Hospital at the end of 1960 :—

<i>No. of years</i>	<i>Males</i>	<i>Females</i>	<i>Total</i>
0-1 year .. .. .	32	31	63
1-2 years .. .. .	12	20	32
2-3 years .. .. .	13	5	18
3 years and over .. .. .	68	54	122

6. The classification of the 319 patients under treatment is as follows :

<i>Classification</i>	<i>Number</i>	<i>Deaths</i>
Manic depressive psychosis .. .. .	99	..
Schizophrenia .. .. .	146	1
Mental defective .. .. .	13	..
Delusions .. .. .	1	..
Epilepsy .. .. .	15	..
Senility .. .. .	22	1
Spastic .. .. .	2	..
General Paralysis of the Insane .. .. .	4	..
Idiocy .. .. .	11	2
Involutional Melancholia .. .. .	2	..
Psychosis with Arteriosclerosis .. .. .	1	..
Alcoholism .. .. .	3	..
	319	4

7. The racial distribution and sex of patients was as follows :—

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Europeans .. .. .	13	16	29
Indians .. .. .	97	101	198
Fijians .. .. .	45	24	69
Others .. .. .	16	7	23
	171	148	319

8. The deaths which occurred at the institution were from the following causes in the following classes :—

<i>General Condition</i>	<i>Cause of Death</i>
Schizophrenia .. .. .	Cardiac failure
Senility .. .. .	Cardiac failure ; hypertension
Idiocy .. .. .	Epilepsy ; aspiration pneumonia
Idiocy .. .. .	Toxaemia, Cachexia

9. The following table shows the nationality and sex of various patients :—

	Europeans		Fijians		Indians		Others		Total		Total
	M	F	M	F	M	F	M	F	M	F	M & F
Remaining at end of 1959 .. .. .	7	6	29	10	72	72	11	5	119	93	212
Admitted during 1960 .. .. .	6	10	16	14	25	29	5	2	52	55	107
											<u>319</u>
Absent on trial during 1960 .. .. .	4	2	10	6	19	25	2	2	35	35	70
Discharged in 1960 .. .. .	..	2	1	..	6	1	..	..	7	3	10
Died during 1960 .. .. .	..	..	1	..	3	..	..	..	4	..	4
Remaining at the end of 1960 .. .. .	9	12	32	18	70	75	14	5	125	110	235
											<u>319</u>
Total number absent on trial including those absent on trial during 1960 .. .. .	11	9	38	38	76	97	14	4	139	148	287

10. Fifty-two patients received electro-convulsive therapy.
11. The Board of Visitors visited the hospital during the year.
12. Soft drinks, sweets, biscuits, peanuts, etc., to the value of £10 were given by the Rotary Club through Dr. E. Williams
13. A group from St. Andrews Church donated soft drinks, sweets, biscuits, etc. to all patients.

## APPENDIX VI

## CENTRAL LEPROSY HOSPITAL, MAKOGAI, FIJI

The reef-encircled island of Makogai is about three miles in length from North to South and about two miles across from East to West. Volcanic in origin, it largely consists of a number of peaks rising to a maximum height of 876 feet, and leading down to sea level by a series of rocky ridges. The latter divide the more useful land into a number of flat areas stretching inland for various distances. Since 1911 these level areas have been used for the establishment and maintenance of a hospital devoted to the treatment of leprosy.

2. The main hospital is situated in Dalice Bay, protected by the small islands of Makodroga and Tabaka. The male patients' villages lie along the shore of the bay to the North and around the adjacent bay of Yaroi to the South. The island is divided roughly in half by a line running from the Southern point of Yaroi bay inland to the summit and thence Northwards to "Black Head", the Northernmost tip of the island. All the land to the North and West of this line is devoted to the hospital and it includes a large "flat" at Takewa, North of the hospital, where the patients practice intensive vegetable gardening.

3. The land to the South and East of the dividing line is used for the staff village, for the dairy farm and for the cultivation of copra. The staff quarters are situated in Nasau village on the Southern tip of the island. Here also are the Post and Wireless Telegraphy office, the Sub-Accountancy, the Power House, Bakery, Dairy and Copra Drying Shed. Nasau is connected to the hospital at Dalice by a three mile motor road. The road also extends beyond the hospital for a further two miles, through Takewa to another level area thickly covered with coconut trees called Vagabia.

4. The medical and nursing staff consist of the Medical Superintendent, Missionary Sisters of the Society of Mary and Fijian Sisters of the Little Sisters of Nazareth. In addition to the general nursing in the hospital wards, Sisters visit the villages daily for general inspection and for dressings of individual cases; patients appearing to require further attention or special treatment are referred to the Medical Superintendent for advice or admission to hospital. The Sisters train a number of patients as dressers in the village dressing rooms and in the hospital proper. They also carry out dispensing and laboratory work, give anaesthetics and assist at operations; they run the X-ray and Physiotherapy Departments and supervise Occupational Therapy; they help with the medical records and the more medical aspects of the clerical work; they control the issue of rations, the hospital kitchen and the hospital laundry; they run the patients' co-operative store and operate the hospital cinema. Their duties are, in fact, all-embracing and a very large proportion of any success attained at Makogai is undoubtedly due to their efficiency, versatility and selfless devotion.

5. The main hospital area is divided into a large women's section and a smaller one for men. The only men in the hospital area, apart from the ward orderlies and dressers, are those too sick or crippled to be able to look after themselves, those with acute reactions or other medical conditions and those admitted for special surgical or other treatment.

6. The able-bodied male patients live in villages outside the central hospital, each race having its own village. The various villages each have a headman of their own race who receives a small stipend for acting as "liaison officer" between patients and staff and for being generally responsible for the cleanliness of his village and the co-operation of his people.

7. During the 49 years of its existence 3,854 patients have been registered in the Fiji Leprosy Hospital. One thousand eight hundred and thirty-nine patients have been discharged, all but one of them with their disease apparently cured: the exception being one patient who is being permitted to continue his treatment on a domiciliary basis. Five hundred and sixteen patients have been repatriated to their homelands and there have been 1,194 deaths. At the end of the year there were 305 patients still in hospital. During the year under review, there were 39 admissions which is slightly below average; 45 patients were discharged and there were 4 deaths. The small number of patients discharged was foreseen in the Annual Report for 1959 in which it was prognosticated that the number of in-patients would not markedly change for several years.

8. The patients under treatment in Makogai on 31st December, 1960, were divided racially as follows:—

Fijians .. .. .	114
Indians .. .. .	115
Europeans and Part-Europeans .. ..	13
Chinese and others.. .. .	63
Total .. .. .	305

9. *Establishment*—The staff of the hospital consists of the following:—

Senior Medical Officer (Medical Superintendent)  
 Local Superior and 17 Sisters of the Missionary Sisters of the Society of Mary  
 5 Sisters of the Little Sisters of Nazareth  
 Higher Executive Officer  
 Class III Clerk  
 Supervisor (Mechanical)  
 Overseer (Stock, Farm and Labour)  
 Sergeant, Corporal and 3 Police Constables  
 Master of A.K. *Makogai* and 4 members of crew  
 41 Labourers.

10. The Medical Superintendent also acts as Sub-Accountant, Postmaster and Magistrate. He maintains a daily surgery for members of the staff and their families. During 1960, 2,055 patients were seen and a further 684 were seen by the Sisters during the Medical Superintendent's absences on duty from the island. There were 7 confinements among wives of staff during the year.

11. During the first half of the year, Doctor D. W. Beckett acted as both Medical Superintendent, Makogai and Divisional Medical Officer, Eastern. He departed on United Kingdom leave on 24th May, 1960, and from then until his return from leave on 27th December, 1960, both posts were filled by Ratu Doctor J. A. R. Dovi, M.B.E. This double responsibility involved a good deal of travelling between Makogai and Levuka and, during October and December, the Medical Superintendent carried out tours in Lau and Kadavu respectively.

12. The following changes took place among the Sisters :—

February	..	Sister Mary Felicitas, Local Superior, departed on leave and was replaced by Sister Mary Valentine.
March	..	Sister Mary Constance left on overseas leave and returned to Makogai on 31st December.
April	..	Sister Mary Angelica left for New Zealand for medical attention and was later transferred to the U.S.A. Sister Mary Lucia was posted to Makogai from New Zealand.
September	..	Sister Mary Valentina departed on overseas leave.

13. Although the motto of the Missionary Sisters of the Society of Mary is "Hidden and Unknown", mention must be made of Sister Mary Felicitas. She was local superior in Makogai for six years, having previously served as one of the Sisters in the hospital. During her time in Makogai she became known throughout Fiji for her great efficiency and devotion to duty. Her tremendous sense of humour and constant cheerfulness endeared her to all who had the privilege of meeting her, let alone working with her. The patients one and all loved and revered her. During the last year of her service in Makogai she suffered considerable ill-health which was borne with her customary cheerfulness. Her departure from the island was a great loss to all on Makogai.

14. *Teaching*—Six Assistant Medical Officers from various administrations who were attending the course for the Certificate in Public Health (Fiji) in the Central Medical School spent about a fortnight in Makogai in April. They were given a refresher course of lectures in leprosy and shown cases of various types of the disease. They also underwent instruction in the laboratory techniques involved in the diagnosis of the disease and assessment of progress under treatment.

15. Undergraduate teaching was carried out by officers of the Department in Suva during the year. New and untreated cases at St. Elizabeth Home were shown to the students.

16. *Statistics*—The classification used in Makogai is a simplification of the Madrid classification. Cases are divided as follows :—

Tuberculoid 1	..	Cases with a few macules and minor disturbances of sensation only (i.e. maculo-anaesthetic leprosy)
Tuberculoid 2	..	Cases with infiltrated leprides and/or thickened or painful nerves (i.e. infiltrated tuberculoid leprosy)
Tuberculoid 3	..	Cases of tuberculoid leprosy with deformities or trophic lesions
Lepromatous 1	..	Cases with macules or with no skin lesions but with positive smears (i.e. macular lepromatous leprosy)
Lepromatous 2	..	Cases with lepromata and/or nodules (i.e. infiltrated lepromatous leprosy)
Lepromatous 3	..	Cases of lepromatous leprosy with advanced skin lesions, lesions of mucous membranes or eyes and with or without neuritic signs
Dimorphous T/L	..	Dimorphous cases indicative of tuberculoid rather than lepromatous leprosy
Dimorphous L/T	..	Dimorphous cases indicative of lepromatous rather than tuberculoid leprosy

17. The total number of admissions over the last five years, divided into the classes described above were as follows :—

	1960	1959	1958	1957	1956
Total No. of Admissions	39	41	38	49	60
Adults	32	33	29	42	43
Children (under 14)	7	8	9	7	17
Tuberculoid 1	13	11	6	16	13
2	7	5	8	11	14
3	..	4	2	2	1
Lepromatous 1	3	3	5	4	16
2	11	9	9	10	11
3	3	..	3	..	5
Dimorphous L/T	..	4	2	3	..
T/L	1	5	3	3	..

18. The discrepancy in the figures for 1960 is due to the fact that one of the 39 admissions was a burnt-out discharged case who was re-admitted for treatment of a trophic ulcer and was, therefore, not classified. The figures show very little variation from year to year. Leprosy, it appears, continues to smoulder in Fiji. However, the slight preponderance of tuberculoid cases seen and the slowly decreasing number of child patients are encouraging signs of a developing resistance to leprosy among the population.

19. The progress of the various patients, divided by classification, is shown below :—

	T1	T2	T3	L1	L2	L3	DT/L	DL/T
Improved .. .. .	25	19	10	60	49	5	5	2
Stationary .. .. .	12	12	..	53	5	10	3	3
Worse .. .. .	..	1	..	4	8	..	..	..

20. As in former years, this table includes all those cases discharged during the year who are shown as having improved and also those admitted during the year, all except the very earliest of whom are shown as stationary. The proportion of lepromatous cases to tuberculoid ones, although still very high, has dropped from 2.55 to 1 to 2.46 to 1. It is, however, too early to say whether this is a new tendency or merely an isolated phenomenon. Only one tuberculoid case did not improve as compared with 12 lepromatous cases and of the total number of tuberculoid cases 68.35 per cent improved during the year in comparison with 58.76 per cent of the lepromatous cases.

21. The racial division of discharges and deaths during 1960 was as follows :—

*Discharges*—All patients notified as suffering from leprosy—

1. Fijians .. .. .	10
2. Indians .. .. .	19
3. Europeans and Part-Europeans .. .. .	3
4. Chinese and others .. .. .	13

Total .. 45

*Deaths*—

1. Fijians .. .. .	2—(a) Protein deficiency ; chyluria due to filariasis (b) Aplastic anaemia and agranulocytosis (? re-action to D.D.S.)
2. Indians .. .. .	2—(a) Pneumonia ; senile decay (b) Metabolic purpura ; amyloidosis.

22. *Treatment*—Diamino-diphenyl-sulphone (DDS) remained the standard treatment during the year under review. In spite of trials of more modern drugs it remains, in our opinion, by far the most efficacious drug in the treatment of leprosy. The customary maximum dosage remained at 400 mg. twice weekly. In most cases the drug was given by mouth but in a certain proportion of cases it was administered parenterally owing to frequent lepra reaction or to continuous gastrointestinal discomfort resulting from oral administration.

23. *Research*—A trial was carried on through 1960 of Diphenylthiourea in combination with Diamino-diphenyl-sulphone. Diphenylthiourea, hereafter referred to as DPT, is also known as CIBA-1906. It is put up in tablets of 0.5 G.

24. One hundred and fourteen patients took part in the trial which lasted for a year. All were cases whose disease was clinically inactive but whose skin scrapings were persistently positive for *M. leprae*. They were divided by random selection into two groups of 57. One group was given DPT 2.0 G. daily and DDS 300 mg. twice weekly and the other group acted as controls by continuing on their old regime of DDS 400 mg. twice weekly. In the first fortnight two patients in the first group complained of stomach upsets and asked to be taken off their DPT. They were put into the control group and two from this group were given DPT instead. Thereafter there were no further complaints and no evidence of any toxic effects was seen at any time during the year.

25. At the end of thirteen months the progress of both groups was assessed and compared. Owing to their disease being inactive, progress had to be assessed on bacteriological evidence alone. The scale of bacterial indices used in Makogai is that advocated by Ridley and is as follows :—

- 1 + = From 1 to 10 bacilli in 100 1/12 inch objective fields
- 2 + = From 1 to 10 bacilli in 10 1/12 inch objective fields or from 10 to 100 bacilli in 100 such fields
- 3 + = From 1 to 10 bacilli in each average 1/12 inch objective field
- 4 + = From 10 to 100 bacilli in each average 1/12 inch objective field
- 5 + = Many bacilli (estimated at over 100) in each average 1/12 inch objective field
- 6 + = Many clumps of bacilli (estimated at over 1,000 bacilli) in each average 1/12 inch objective field.

26. It will be seen that each additional + represents approximately ten times as many bacilli as the previous grading. At least three sites were usually examined, often four and never less than two. Patients were examined thus every three months until they became bacteriologically negative, after which they were examined every month.

27. Results were as follows :—

	TRIAL GROUP DPT 2.0 G. daily DDS 300 mg. twice weekly	CONTROL GROUP DDS 400 mg. twice weekly
Improved .. .. .	19	28
Stationary .. .. .	36	26
Worse .. .. .	2	3

DPT is now used as standard treatment for those who, because of frequent lepra reaction or because of anaemia, are unable to tolerate DDS in any form. It seems that it can definitely be accepted that DPT in the dosage given has no activity in enhancing the effect exercised on leprosy by DDS.



28. An interesting phenomenon was observed during the year. A smallpox scare in a territory near Fiji was the occasion of many of the patients being vaccinated. In all 276 patients were vaccinated, the multiple puncture technique being used. Of these, 73 cases (or 26.45 per cent of the total) developed, about a week or ten days later, an extremely severe lepra reaction. In many cases acute nerve pain accompanied the reaction. In one case the reaction was so severe that the patient's lesions ulcerated. Of these 73 patients, ten had never before suffered from a lepra reaction. The action of vaccination against smallpox in precipitating lepra reaction when administered to patients suffering from leprosy seems worthy of further study.

29. *Tuberculosis*—All patients undergo routine chest X-ray on admission and again at intervals of three years. During 1960 one case of pulmonary tuberculosis was diagnosed and put under treatment. No cases were transferred from the Tuberculosis Hospital at Tamavua.

30. At the end of the year there were 6 patients undergoing treatment for pulmonary tuberculosis and there were 31 who were having more frequent chest X-rays than normal—usually every six months—either because they were patients who had been discharged from the tuberculosis ward or because their skiagrams appeared somewhat abnormal.

31. *X-Ray and Physiotherapy Departments*—The decreasing number of patients continues to be reflected in the decreasing amount of work done in these departments which are under the control of the same Sister. During 1960, 238 X-rays were taken, 2,933 patients underwent various forms of electrotherapy and physiotherapy and 2,956 sessions of exercises were supervised. This last figure is slightly in excess of that for 1959. The Sister in charge of these departments also took, developed and printed 500 photographs for record purposes.

32. *Surgery*—Owing to the fact that all surgery must be performed single-handed, local or spinal anaesthesia is used whenever possible. If general anaesthesia cannot be avoided the simplest type of open ether inhalation is administered by a Sister under the supervision of the surgeon. Fifty-eight operations were performed during the year and they fell into the following groups :—

Appendicectomy .. .. .	4
Herniorrhaphy .. .. .	2
Ovarian cystectomy .. .. .	1
Suprapubic cystotomy .. .. .	1
Decapsulation of ulnar nerve .. .. .	2
Reduction of fracture .. .. .	1
Plastic operation on eye (for cure of Ptosis) .. .. .	3
Plastic operation on ears .. .. .	4
Circumcision .. .. .	5
Amputation of digit .. .. .	3
Removal of sequestra .. .. .	5
Excision of cysts, lipomata, etc. .. .. .	7
Incision of abscess .. .. .	7
Excision and scraping of trophic ulcer .. .. .	9
Suturing of accidental wound .. .. .	1
Removal of foreign body (from hand) (sewing needles)	2
(from buttock) .. .. .	1
Total .. .. .	58

33. *Dentistry*—Makogai was not visited by a Dental Officer during the year. The Sister in charge of the Dental Department was withdrawn from Makogai in April on medical grounds and was replaced by another Sister who is untrained. The following work was carried out :—

Extractions .. .. .	124
Fillings .. .. .	92
Scalings .. .. .	36
Treatment of gums .. .. .	32

34. *Laboratory*—The laboratory was again kept busy during the year with ordinary day-to-day work of the "clinical sideroom" variety. The following special work was also done :—

Skin smears for <i>M. leprae</i> .. .. .	3,280
Hb. estimations and blood counts .. .. .	2,146
Vaccinations for smallpox .. .. .	609
Lepromin tests .. .. .	316

35. *Occupational Therapy*—Occupational therapy is carried on in Makogai with two primary objects. In the first place it is used to keep the patients occupied, make them exercise their bodies and limbs and, particularly, their hands, and to enable them to earn a little pocket money. With this object in view, all the wards were scraped and re-painted inside during the year, the operating theatre was extensively repaired and refashioned as was the men's dispensary; a new bath-house was built and several other smaller buildings repaired. This work and all other running repairs were carried out entirely by the patients.

36. In the second place it is our endeavour to ensure that every patient leaves Makogai better fitted in some way to earn a living than he had been when he entered hospital. With this purpose our school, technical school (Ernest Wolfram Technical Institute) and the Alice Austin Arts and Crafts Centre are all kept busy. The standard of joinery attained by the patients always attracts interest and high praise. Apart from these, the following subjects are taught to those interested: building techniques of all kinds from concrete block making via brick laying, plastering and carpentry, to roof laying; plumbing, electrical engineering, mechanical engineering, metal working, boat building, lorry driving and market gardening are also taught to the men. The women learnt mat-making, basket-making, native dancing and singing, cookery, laundering, sewing and knitting. In addition to these pursuits, Sisters run classes in painting, pottery making, sculpture, drawing and shorthand and typing.

37. *Lepers' Trust Board*—The Lepers' Trust Board continued with their customary generosity during 1960. A greater proportion of the Board funds has now to be used in rehabilitating discharged patients but this did not prevent the Board from giving many examples of its kindness to Makogai. A new verandah was provided for the staff ward and a donation of £1,000 was made to the Comforts Fund. Many other smaller gifts and donations too numerous to detail individually were also made. The usual supply of gift cases and films continued to arrive from New Zealand. The Fiji Branch of the Lepers' Trust Board met in Makogai during November.

38. *Visitors*—The usual large number of visitors both official and casual, came to Makogai during the year. In all 80 persons signed our visitor's book but that is by no means all that came. The following list gives an idea of the variety of visitors we meet in a year's work. As usual it is printed in chronological order of visits:—

- The Director of Medical Services
- The Deputy Director of Medical Services
- The Officer Commanding R.N.Z.A.F. Station, Laucala Bay, Group Captain Breckon
- The Editor of the Fiji Times, Mr. L. G. Usher
- The Physician Specialist, Colonial War Memorial Hospital, Suva
- The Director of Medical Services, R.N.Z.A.F., Group Captain Marsh
- The Suva City Council Engineer, Mr. T. Gemmell
- The Director of Public Works
- Members of the Lepers' Trust Board (Fiji) Inc.
- Most Rev. Bishop Foley, Vicar Apostolic of Fiji and Rotuma
- Most Rev. Archbishop de Furstenberg, Apostolic Delegate to Australasia and Pacific
- Members of the Sergeants' Mess, R.N.Z.A.F. Station, Laucala Bay.

39. For the second year in succession the members of the Sergeants' Mess, Laucala Bay, presented the Comforts Fund with £125. This is a very large sum to be collected by so small a number of men and all in Makogai are touched by their very great generosity and kindness. This year, in addition to many other gifts, they brought two large containers of ice-cream—a most thoughtful gift and one deeply appreciated by the patients who so seldom have an opportunity to enjoy the delicacy.

40. *General*—The new electricity installation was completed by the end of the year except for some minor fittings.

41. The wharf was repaired and extended by the Public Works Department in the second half of the year. It can now be used by the A.K. *Makogai* at all states of the tide.

42. Climatically the year was equable. There were no hurricanes, droughts or floods.

43. During 1960 two advances occurred in the official and public attitude towards leprosy. For the first time a patient who was finding it quite impossible to look after his business interests while isolated in Makogai was permitted to have domiciliary treatment, subject to his agreement to undertake certain safeguards to prevent spread of the disease. For the first time, too, patients were permitted to visit their homes for periods of up to one month in order to attend to their urgent private affairs and many patients were enabled to avail themselves of this concession.

44. In conclusion, once again the co-operation and assistance of the Sisters, lay-staff and patients is recorded.

## APPENDIX VII

## ST. ELIZABETH HOME—KOROVOU, SUVA

Discharged cases from Makogai housed until transport was arranged to their various destinations in and outside the Colony :—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Fijians .. .. .	7	3	10
Indians .. .. .	11	8	19
Solomon Islanders .. .. .	2	1	3
Tongans .. .. .	2	..	2
Rotumans .. .. .	1	..	1
Chinese .. .. .	1	..	1
Samoan .. .. .	2	1	3
Cook Islanders .. .. .	1	1	2
Euronesians .. .. .	1	..	1
	<hr/>	<hr/>	<hr/>
	28	14	42

## 2. Patients housed pending removal to Makogai :—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Fijians .. .. .	16	3	19
Indians .. .. .	3	4	7
Solomon Islanders .. .. .	2	..	2
Euronesians .. .. .	1	..	1
	<hr/>	<hr/>	<hr/>
	22	7	29

## 3. Patients on survey, treatment, leave or other matters, housed during the year :—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Fijians .. .. .	50	47	97
Indians .. .. .	38	11	49
Solomon Islanders .. .. .	4	..	4
Tongans .. .. .	1	..	1
Rotumans .. .. .	..	2	2
Chinese .. .. .	4	..	4
Euronesians .. .. .	7	..	7
Europeans .. .. .	2	..	2
	<hr/>	<hr/>	<hr/>
	106	60	166

## 4. Total number of discharged patients from Suva, Rural and Urban, during 1960 :—

	<i>Male</i>	<i>Female</i>	<i>Total</i>
Suva Urban .. .. .	3	..	3
Rural .. .. .	3	1	4
	<hr/>	<hr/>	<hr/>
	6	1	7

5. The Divisional Medical Officer, Central, who is responsible for St. Elizabeth Home also reported that at his clinic at the Health Office, Suva :—

162 discharged cases were examined at their regular review

34 suspected cases were seen—5 of these were positive and admitted to Makogai Leprosy Hospital

722 contacts were examined

87 inactive cases reported for treatment of various sequelae.

## APPENDIX VIII

## DENTAL DIVISION—MEDICAL DEPARTMENT

The work of this division continued to follow the pattern of previous years with activity concentrated on provision of dental treatment, dental health education and preventive dentistry in schools and training of personnel.

## A—DENTAL TREATMENT

2. Attendance by adults was restricted as much as possible in favour of children and treatment given to adults was restricted to palliative treatment except in the case of adults referred for specialized treatment.

## (i) Suva Dental Clinic (Headquarters)

## 3. Staff—

D. M. Ellerton, B.D.S.	.. ..	Senior Dental Officer
I. L. Vosailagi, B.D.S.	.. ..	Dental Officer
Mrs. N. H. Palmer, B.A.	.. ..	Dental Hygienist (part-time)
I. Nadakuitavuki	.. ..	Assistant Dental Officer
M. Ligani	.. ..	Assistant Dental Officer
D. Singh	.. ..	Assistant Dental Officer
V. Pal	.. ..	Assistant Dental Officer
M. Masi	.. ..	Assistant Dental Officer
Sister Beddows	.. ..	Nursing Sister
M. Vidovi	.. ..	Senior Nurse
Madan Pal	.. ..	Assistant Dental Mechanic
L. Permal	.. ..	Assistant Dental Mechanic
T. Narayan	.. ..	Assistant Dental Mechanic
Susan Herman	.. ..	Assistant Dental Hygienist
Caroline Evans	.. ..	Assistant Dental Hygienist
Pushpanjali Madhavan	.. ..	Assistant Dental Hygienist

Dental Officer A. H. Thomson was in charge of conservative dentistry and conducted an orthodontic clinic for school children. Assistant Dental Officer Devi Singh was in charge of the construction of dentures. Assistant Dental Officer Isoa Nadakuitavuki took over Minor Oral Surgery from the Senior Dental Officer who remained in charge of periodontia.

4. The total treatments given showed a considerable increase despite the absence this year of any senior students in the clinic.

5. Dentures were provided, at a cost according to means, for adults with an income of less than £800 per annum.

## 6. Treatments provided :—

## Operative—

Fillings	.. ..	3,363
Temporary fillings	.. ..	2,629
Scalings	.. ..	353

## Surgery—

Extractions—permanent	.. ..	6,238
deciduous	.. ..	3,386
Surgical operation	.. ..	141
General anaesthetics	.. ..	37
Fractured Mandible fixations	.. ..	41

## Radiography—

Films taken	.. ..	664
-------------	-------	-----

## Dentures—

Complete dentures	.. ..	174
Full upper or lower	.. ..	10
Partial dentures	.. ..	47
Repairs and rebases	.. ..	63
Orthodontic cases	.. ..	48

## 7. Attendances :—

## Adults—

Europeans	.. ..	609
Part-Europeans	.. ..	511
Fijians	.. ..	3,626
Indians	.. ..	3,785
Others	.. ..	573

Total .. 9,104

## Children—

Europeans	.. ..	1,450
Part-Europeans	.. ..	1,080
Fijians	.. ..	1,868
Indians	.. ..	5,839
Others	.. ..	570

Total .. 10,807

Total Adult and Child attendances .. 19,911

Total Revenue .. £2,088 7s. 6d.

## (ii) Lautoka Dental Clinic

8. This clinic was located in the Health Office building until November 1st when it was moved to Lautoka Hospital. The new clinic has a small operating room with a large waiting room. The clinic was conducted by Assistant Dental Officer Pillai and Assistant Dental Hygienist Pushpa Prasad. Tours were made to schools in the Nadi and Lautoka districts and also to the Yasawas, Malolo and Vatulele.

## 9. Treatments provided :—

<i>Operative—</i>						
Fillings	..	..	..	..	..	1,658
Temporary fillings	..	..	..	..	..	733
Extractions	..	..	..	..	..	7,229
Surgical operations	..	..	..	..	..	9
General Anaesthetic	..	..	..	..	..	7
Fractured mandible fixations	..	..	..	..	..	15
Scalings	..	..	..	..	..	217
<i>Radiography</i>	..	..	..	..	..	45
10. Attendances :—						
Adults	..	..	..	..	..	3,294
Children	..	..	..	..	..	5,954
Total Revenue	..	..	..	..	..	£938.

## (iii) Labasa Dental Clinic

11. This clinic, housed in an out-building of Labasa Hospital, was operated by Assistant Dental Officer L. Narayan, assisted up until August by Assistant Dental Hygienist Ana Kasami. Tours were made to 29 schools throughout the division.

## 12. Treatments provided :—

<i>Operative—</i>						
Fillings	..	..	..	..	..	1,188
Temporary fillings	..	..	..	..	..	236
Extractions	..	..	..	..	..	3,097
Scalings	..	..	..	..	..	54
Surgical operations	..	..	..	..	..	4
General Anaesthetic	..	..	..	..	..	17
Fractured mandible fixations	..	..	..	..	..	27
<i>Radiography</i>	..	..	..	..	..	14
13. Attendances :—						
Adults	..	..	..	..	..	1,279
Children	..	..	..	..	..	1,899
Total Revenue	..	..	..	..	..	£372.

## (iv) Levuka Dental Clinic

14. This clinic was located in the Divisional Medical Office. It was operated during the year by Assistant Dental Officer J. Savou. Tours were made to 7 schools in Ovalau. In December it became necessary to close this clinic due to shortage of staff.

## 15. Treatments provided :—

<i>Operative—</i>						
Fillings	..	..	..	..	..	543
Temporary fillings	..	..	..	..	..	78
Extractions	..	..	..	..	..	562
Scalings	..	..	..	..	..	13
General Anaesthetics	..	..	..	..	..	3
<i>Radiography</i>	..	..	..	..	..	3
16. Attendances :—						
Adults	..	..	..	..	..	180
Children	..	..	..	..	..	704
Total Revenue	..	..	..	..	..	£49 5s. 0d.

## (v) Ba Dental Clinic

17. This clinic, located in the dispensary at Nailaga Hospital, was operated until August by Assistant Dental Officer Koroiwale and from October by Assistant Dental Officer Ligani and Assistant Dental Hygienist Pushpa Madhavan.

## 18. Treatments provided :—

<i>Operative—</i>						
Fillings	..	..	..	..	..	511
Temporary fillings	..	..	..	..	..	280
Extractions	..	..	..	..	..	3,217
Scalings	..	..	..	..	..	139
19. Attendances :—						
Adults	..	..	..	..	..	1,465
Children	..	..	..	..	..	1,703
Total Revenue	..	..	..	..	..	£414 15s. 0d.

*(vi) Mobile Dental Clinic*

20. This vehicle was engaged throughout the year visiting schools in Viti Levu. Conservative dental treatment was given only at schools where daily tooth brushing was being carried out. Other schools received only palliative treatment.

21. *Treatments provided :—**Operative—*

Fillings .. .. .	2,996
Temporary fillings .. .. .	257
Extractions .. .. .	3,289
Scalings .. .. .	236

22. *Attendances :—*

Adults .. .. .	245
Children .. .. .	3,379

*(vii) Field Tours from Headquarters*

23. Tours were made to Matuku with the Central Medical School survey team and to Rotuma.

24. *Treatments provided :—**Operative—*

Fillings .. .. .	320
Extractions .. .. .	1,045

*(viii) Tamavua Dental Clinic*

25. An Assistant Dental Officer attended this clinic on Saturday mornings.

26. *Treatments provided :—**Operative—*

Fillings .. .. .	130
Temporary fillings .. .. .	...
Extractions .. .. .	300
Scalings .. .. .	25

27. *Attendances .. .. .* 281

*(ix) Rural Dispensaries*

28. Each dispensary throughout the Colony is equipped with a standard set of dental forceps. A survey of the present state of serviceability of all forceps was made by circular during the year and unserviceable items were replaced.

## B—DENTAL HEALTH EDUCATION AND PREVENTIVE DENTISTRY IN SCHOOLS

29. Many more schools purchased low cost brushes for the first time in 1960 but a disappointing feature was the large number of headmasters who did not order replacement brushes. A total of 14,600 brushes were purchased by 95 schools and a total of 41 cabinets were purchased by 20 schools.

30. Dental health talks were given in those schools visited by the Mobile Dental Clinic.

31. Existing posters and the booklet " Good Teeth " were supplied to schools upon request.

## C—TRAINING OF PERSONNEL

32. For training of Assistant Dental Officers see under Central Medical School.

33. Two new girls commenced training as Assistant Dental Hygienists and one girl completed her training and entered the Service.

APPENDIX IX  
PATHOLOGICAL DIVISION

*Staff*—The Pathologist relinquished duties at the Central Laboratory on completion of contract on the 17th February, 1960. The Acting Pathologist and the Laboratory Superintendent were present throughout the remainder of the year. Appreciation is recorded of the valuable assistance and advice given by the Pathologist before departure.

2. The trained local staff consisted of three Senior Laboratory Assistants, one stationed at Lautoka Branch Laboratory, and five Assistants. One Assistant returned from a post-graduate course in Biochemistry at the beginning of the year and has added to greater efficiency in this section of the Laboratory. The staff at the Branch Laboratory, Lautoka, was increased by the transfer of one Assistant from the Central Laboratory and this has been of benefit to the work carried out at this Laboratory.

3. *Students*—Three students gained their Certificates during the year, one from Fiji and two from Papua and New Guinea. Three students from Fiji are expected to qualify at the end of this year. One student from Fiji and two from Papua and New Guinea continue their training. It is regretted that no further trainees from Fiji were appointed during the year and it is difficult to see how further expansion of Laboratory services to other centres can be accomplished from the present staff if the present standard of work is to be maintained at the Central Laboratory.

4. Assistant Medical Officers have been posted to the Laboratory for periods of three months during the year, as part of their initial hospital training. This scheme broke down because of staff commitments in the hospital. The appointment of an Assistant Medical Officer to act as Assistant to the Pathologist was not possible.

5. The Laboratory supplies a 24 hour service. An Assistant is always on call for emergencies outside normal working hours. The number of hours worked during the year by the Assistants was 976 hours or an average of 18 hours a week.

6. *Blood Transfusion*—The blood transfusion room proved a useful acquisition and has considerably facilitated this part of the Laboratory work.

7. The number of pints of blood collected during the year was 1,136 as compared with 964 last year. However, continual appeals for donors were necessary to ensure adequate supplies.

8. *Routine Diagnostic Examinations*—These examinations comprised the main work of the division. The total examinations carried out was 57,146.

9. *Teaching*—The teaching of general pathology, bacteriology, clinical pathology and forensic medicine at the Central Medical School was continued. Post-graduate lectures and instruction on public health bacteriology were given to candidates for the Certificate of Public Health.

10. The teaching of Laboratory students continued with lectures to supplement their practical instruction.

11. Facilities for microscopic examination in pathology are still far short of that desirable although material is being gradually accumulated for this purpose.

12. *Post Mortem Examinations*—One hundred and ninety-three post mortem examinations were carried out during the year.

13. *Special Examinations*—Investigation into the electro-phoretic patterns of plasma proteins was commenced during the year, as was hoped in last year's report. Sensitivity patterns to anti-tuberculosis drugs were commenced during the latter part of the year and is continuing and will eventually become a routine procedure in the Laboratory.

14. *Branch Laboratory—Lautoka*—A total of 21,473 examinations were carried out at this Laboratory. As mentioned, an Assistant from the Central Laboratory was transferred to assist with the increased work.

15. Details of examinations carried out are shown in Table II.





APPENDIX X  
CENTRAL MEDICAL SCHOOL

The following table shows the number of students for each course during the past ten years :—

TABLE I

Course	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960
Medical .. .. .	124	129	123	100	88	86	92	90	89	85
Dental .. .. .	23	30	23	31	28	16	14	6	6	16
Pharmacy .. .. .	5	9	6	6	6	4	2	4	3	7
Sanitation .. .. .	10	20	13	12	7	14	11	16	26	16
Laboratory .. .. .	6	12	8	8	10	6	4	6	7	8
Filariasis and Mosquito Control .. .. .	14	21	9	8	24	....	....	....	....	....
X-ray .. .. .	1	1	3	5	5	1	1	....	2	3
Dietetics .. .. .	....	....	....	....	....	2	3	1	2	3
Physiotherapy .. .. .	....	....	....	....	....	....	....	....	....	3
Total .. .. .	183	222	185	170	168	129	127	123	135	141

2. The number of students from each territory at the beginning of the academic year is shown in Table II.

3. Of the 14 students who commenced the final year in medicine, two qualified in April, one qualified in June and seven qualified in December. One was rusticated, one was required to repeat six months of the final year and two were required to repeat a full year.

4. There were no dental qualifications in 1960.

5. During the course of the year, the following reductions in other classes took place :—

- A.M.O. IV—One was rusticated
- A.D.O. I—Two resigned, one was discharged
- Sanitation—All qualified
- Laboratory—Two qualified.

6. *Post-Graduate Courses*—One student from the Cook Islands, having completed his undergraduate course, remained for six months doing prosthetics. One from Nauru remained for a year. One Assistant Dental Officer from the Cook Islands had a general refresher course. One Assistant Medical Officer from Western Samoa arrived late in the year to commence an anaesthetics course and an Assistant Pharmacist from Tonga did a refresher course in pharmaceutical stores control.

TABLE II

Administration	Pre-Medical High School Course		Medical								Dental All Years		Pharmacy		Sanitation		Laboratory		X-ray		Dietetics		Physiotherapy		Postgraduate		Total			
	1959	1960	I		II		III		IV		V		1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960		
			1959	1960	1959	1960	1959	1960	1959	1960	1959	1960																	1959	1960
	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960		
Gilbert & Ellice Islands Colony	1	2	2	2	3	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	10
B.S.I.P.	3	2	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8	8
Niue Island	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	8	7	
Cook Islands	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Tokelau Islands	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
American Samoa	12	4	6	6	2	2	2	2	4	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7	6	
Papua-New Guinea	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27	26	
Dutch New Guinea	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	
Tonga	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	4	
Nauru Island	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	
New Hebrides	4	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	3	
U.S.T.T.P.	4	3	5	3	6	5	5	5	5	5	9	9	7	3	3	13	13	1	1	1	1	1	1	1	1	1	1	6	10	
Fiji	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	59	55	
Western Samoa	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	7	
Total	27	16	13	15	12	13	13	11	11	11	12	13	6	10	3	26	16	8	2	3	2	3	3	2	2	2	2	135	141	

7. There were eight students in the newly established Certificate of Public Health Course which lasted six months and finished in September. All of the students were successful. There was one from the Gilbert and Ellice Islands, two from Western Samoa, one from the British Solomon Islands Protectorate, one from Papua and New Guinea and three from Fiji. This course is to be repeated in 1961.

8. *Staff*—Mr. Jimione Samisoni, B.Sc. Otago, successfully completed his course in physiology and joined the staff at the commencement of the first term in 1960. Mr. and Mrs. Jain, physics and chemistry lecturers respectively, were away on leave and their places were temporarily filled by one lecturer from New Zealand and one locally recruited.

9. Mr. R. L. Miller, the Health Instructor, was awarded a World Health Organization Travelling Scholarship and left in September to tour various sanitation teaching centres in the Western Pacific region.

10. The two World Health Organization lectureships (in biology and physiology) continued.

11. *General*—The Nuffield Department of Social and Preventive Medicine was in its second year and still continued to be supported by the funds provided by the Nuffield Foundation. It will be remembered that this department was established in 1959, both capital expenditure and running expenses for three years being obtained from a generous grant by the Nuffield Foundation.

12. *Visitors*—The School received a number of visitors during the year. The interest shown by scientific and administrative guests is appreciated. The visits of both Administrators and Medical Department officers from the territories served by the School were particularly appreciated.

13. *Acknowledgments*—This School could not function without the co-operation of the Medical Department, both administrative and those numerous doctors and other professional people employed by the Department and, increasingly, by other Departments in Government.

## APPENDIX XI

## NURSING DIVISION

The recruitment of nursing sisters continued from New Zealand and Australia with some local appointments.

2. The main hospitals and some Health Centres worked below the establishment of fully qualified nurses during the year and appreciation is extended to those who have uncomplainingly continued to give a high standard of service to the community.

3. The staffing of the hospitals and districts by Colony certificated nurses continued to be satisfactory.

4. Two local nurses trained at the Central Nursing School under the New Zealand curriculum returned from New Zealand having completed one year post-graduate training in midwifery. Both girls were successful in the examination. Two other nurses left for New Zealand early in December to undertake midwifery training.

5. Accommodation for nurses attached to district work in some areas remained far from satisfactory.

6. Arrangements were made during the year for student nurses from the Suva and Lautoka training schools to have some practical training in public health field work under the Health Sisters at Wainibokasi and Sigatoka.

7. *Nurses' and Midwives' Board*—The Nurses' and Midwives' Board met in January.

8. *Health Sisters' Conference*—The annual Health Sisters' Conference took place during October.

9. *Nursing Establishment*—

	<i>Post</i>	<i>Filled</i>	<i>Vacant</i>
Nursing Superintendent .. .. .	1	1	..
Matrons .. .. .	4	4	..
Assistant Matron .. .. .	1	1	..
Sister-in-Charge .. .. .	4	4	..
Health Sisters .. .. .	12	7	5
Sisters, Ward and Departmental..	53	34	19
Principal, Nursing School .. .. .	1	1	..
Tutor Sisters .. .. .	6	6	..
Charge Nurses .. .. .	16	11	5
Staff Nurses .. .. .	70	67	3
Nurses—Male and Female .. .. .	314	294	20
Appointment of Sisters on local contract .. .. .	..	..	2
Appointment of Sisters on New Zealand contract .. .. .	..	..	4
Appointment of Sisters on Australian contract .. .. .	..	..	6
Appointment of local Sisters—permanent .. .. .	..	..	4
Appointment of local Sisters—temporary .. .. .	..	..	7
Promoted to Sister .. .. .	..	..	3
Promoted to Charge Nurse .. .. .	..	..	4
Promoted to Staff Nurse .. .. .	..	..	10
Total number accepted on 2 year contract .. .. .	..	..	12
Total number accepted on temporary appointment .. .. .	..	..	7
Total number accepted on permanent appointment .. .. .	..	..	4
Total number completing contract .. .. .	..	..	7
Total number of resignations, including 14 temporary appointments .. .. .	..	..	26
Total number extending contracts (3 months—1 year).. .. .	..	..	3
Total number of Sisters resigned on marriage and re-appointed temporary .. .. .	..	..	1

10. *Fiji qualified Nurses*—The total number of Nurses including Male and Female Tuberculosis trained Nurses employed as at 31st December, 1960, was 361.

Total number employed in hospitals .. .. .	252
Fijians and others .. .. .	234
Indians .. .. .	18
Total number employed in districts .. .. .	109
Fijians and others .. .. .	100
Indians .. .. .	9
Total number of Nurses qualified during the year .. .. .	52
First appointments .. .. .	63
Re-appointed .. .. .	31
Resumed duties following leave of absence .. .. .	6
Resigned .. .. .	89
Duties terminated .. .. .	6
Promoted to Charge Nurse .. .. .	4
Promoted to Staff Nurse .. .. .	10
Retired .. .. .	1
Deceased .. .. .	1
Resigned on marriage and re-appointed temporary officer .. .. .	21

## NURSING SCHOOLS

11. *Central Nursing School, Tamavua*—Trained Establishment—

	<i>Posts</i>	<i>Filled</i>	<i>Vacant</i>
Principal .. .. .	1	1	..
Tutors .. .. .	4	4	..
Nurses .. .. .	2	1	1

12. Number of students in training as at 31st December, 1960	159
Colony Curriculum .. .. .	133
New Zealand Curriculum .. .. .	26

13. *Colony Curriculum*—

Number graduated during May, 1960 .. .. .	34
Number entered the School in January .. .. .	56
Number transferred from Lautoka Hospital .. .. .	1
Number transferred to New Zealand curriculum .. .. .	5
Number selected for New Zealand curriculum .. .. .	14
Number duties terminated for health reasons .. .. .	2
Number admitted to Chest Hospital .. .. .	1
Number transferred to Tamavua Hospital for tuberculosis training .. .. .	5
Number left school for various reasons .. .. .	29

14. *Colony Course Roll Includes*—

Fijians .. .. .	119
Rotumans .. .. .	9
Papuan .. .. .	1
Part-European .. .. .	1
Indian .. .. .	1
Part-Chinese .. .. .	1
Banaban .. .. .	1
	—133

15. *New Zealand Curriculum*—

Number in training as at 31st December .. .. .	26
Number entering the class .. .. .	14
Number transferred to Colony curriculum .. .. .	5
Number left during the year .. .. .	2
Number successful First Professional in May .. .. .	4
Number successful in Final State Registration Examination .. .. .	3

16. *New Zealand Course Roll Includes*—

Fijians .. .. .	14
Rotumans .. .. .	3
Indians .. .. .	5
Part-Europeans .. .. .	2
Samoans .. .. .	2

17. *Graduation*—The Graduation Ceremony took place on 3rd May when the Nurses were addressed by Lady Maddocks and the Acting Director of Medical Services. Special prizes were presented by Lady Maddocks. The Nursing Superintendent pinned the medals on the graduating Nurses and presented the certificates.

18. At a small function during October, three Nurses who were successful in the New Zealand State Final Examination were addressed by the Director of Medical Services and were presented with their medals and certificates by the Nursing Superintendent.

19. *Sport*—Continued interest has been taken in sport and athletics. Appreciation is extended to Mrs. Dill-Russell and Mr. L. Simpson who have been most helpful in the field of athletics.

## LAUTOKA NURSING SCHOOL

20. *Trained Establishment*—

	<i>Posts</i>	<i>Filled</i>	<i>Vacant</i>
Tutors .. .. .	2	2	..
Nurse .. .. .	1	1	..

21. Number of students in training as at 31st December, 1960	.. 78
Number graduated during May .. .. .	19
Number entered the School in January .. .. .	24
Number left the School for various reasons .. .. .	7
Number admitted to Tamavua Chest Hospital	1

22. *School Roll Includes*—

Fijians .. .. .	64
Indians .. .. .	14
	—78

23. *Graduation*—The School Graduation and Prize Giving Ceremony was held during May. The Acting Director of Medical Services addressed the Nurses. Medals were presented by the Nursing Superintendent and Certificates and Special Prizes by Mrs. M. McAlpine (wife of the District Commissioner, Western).

24. Student Nurses from the Ba Mission Hospital continued to spend the required nine months training at the Lautoka Hospital.

25. *Sport*—A high standard of basketball was played during the year which is a game enjoyed by most student Nurses.

26. *Grand Total (not including New Zealand Curriculum)*—

Total number of student Nurses in training at the end of	
December, 1960 .. .. .	
Fijians .. .. .	211
Rotumans .. .. .	183
Indians .. .. .	9
Part-Europeans .. .. .	15
Part-Chinese .. .. .	1
Banaban .. .. .	1
Papuan .. .. .	1
	—
	211
Total number accepted to the School .. .. .	80
Total number graduated in May .. .. .	53
Total number leaving the School .. .. .	36
Total number admitted to Chest Hospital .. .. .	2
Total number selected for New Zealand Curriculum ..	14
Total number transferred to Colony Curriculum from New Zealand Curriculum .. .. .	5

#### HEALTH STAFF

27. *Establishment—Nursing*—

Health Sisters .. .. .	12
Nurses .. .. .	109

28. The programme of work carried out during 1960 by the Health Sisters and Nurses, was similar to that of 1959.

29. *Health Sisters' Headquarters and Areas*—

Name	Headquarters	Areas
Miss L. Ram Samuj .. .. .	Suva Health Office ..	Suva City, Suva Rural to Kalokolevu via Queens Road, Colo-i-Suva via Princes Road to Laqari Kalabo and Naliva village to King's Road, Wailoku Hospital.
Miss E. Gregory .. .. .	Suva Health Office ..	Suva City, Suva Rural Schools to Davuilevu via King's Road to Sawani via Princes Road.
Miss C. A. Bell .. .. .	Sigatoka .. .. .	Nadroga, Navosa, Namosi.
Mrs. J. Cleary .. .. .	Lautoka .. .. .	Lautoka to beyond Korolevu on Queen's Road and beyond Raki-raki via King's Road.
Mrs. O. M. Caine .. .. .	Ba .. .. .	Ba Province.
Miss L. Hunter-Smith .. .. .	Labasa .. .. .	Macuata, Bua.

30. There are six Health Sister posts vacant.

#### SUVA HEALTH OFFICE

Health Sisters two (one Child Welfare, one School Health Sister)

##### A—CHILD WELFARE DEPARTMENT

Children under 2 years seen at Health Office .. .. .	7,001
Children between 2 years and 5 years seen at Health Office	3,686
Children under 2 years seen on Mobile Clinic .. .. .	6,957
Children between 2 years and 5 years seen on Mobile Clinic	1,541
Stools sent to Laboratory .. .. .	50
Children treated for worms .. .. .	285
Smallpox vaccinations .. .. .	13,829
Vaccination inspections .. .. .	470
Triple antigen inoculations given .. .. .	796
T.A.B. inoculations given .. .. .	145
Cholera inoculations given .. .. .	138
Inoculations against Poliomyelitis given .. .. .	1,571
Umbilical cords dressed or treated .. .. .	179
Number of homes visited .. .. .	1,407
Number of children seen in homes .. .. .	2,670
Number of cases referred to Hospital or private Doctor ..	712

## B—SCHOOL HEALTH DIVISION

Number of children inspected, inoculated and treated at schools and in Health Clinic during 1960.

Number of children medically inspected at schools ..	13,139
Number of children given T.A.B. inoculations at schools ..	16,728
Number of children treated for minor ailments at schools	284
Number of children treated for minor ailments at Health Clinics .. .. .	6,604
Number of children given T.A.B. inoculations at Health Clinics .. .. .	126
Number of children given Anti-tetanus inoculations at Health Clinic .. .. .	24
Number of children given tetanus Toxoid inoculations at Health Clinic .. .. .	6
Number of children given tetanus Toxoid inoculations at schools .. .. .	711
Number of children given Pencillin injections at Health Clinic .. .. .	3
Vaccinations against smallpox given at Health Clinic ..	742
Vaccinations against smallpox given at schools .. ..	6,771
Number of children treated for worms at Health Clinic ..	58
Number of stool specimens sent to Laboratory .. ..	10
Number of children given triple-Antigen at Health Clinic ..	24
Number of children given Anti-poliomyelitis inoculation ..	418
Number of children treated for loss of weight at Health Clinic	35
Number of children found with chickenpox at schools ..	1
Number of children found with chickenpox at Health Clinic	5
Number of children found with mumps at schools .. ..	1
Number of children found to have measles at Health Clinic	19
Number of children sent to Out-patient department ..	230
Number of children sent to Dental Clinic .. .. .	34
Number of children sent to eye clinic .. .. .	24

## C—DISPENSARIES

Number of patients seen at Wailoku Hospital, Waiqanake and Villages .. .. . 5,693

ACTIVITIES OF HEALTH SISTERS AND RURAL HEALTH NURSES  
BASED ON CENTRES OUTSIDE SUVA

	Lautoka	Ba	Labasa	Nadroga	Rewa	Total
Attendances at Health Clinic .. .. .	2,573	1,271	9,709	1,643	....	15,196
Schools visited .. .. .	44	7	95	62	101	309
Children examined in schools .. .. .	8,544	1,264	4,280	7,246	18,056	39,390
Children seen in villages .. .. .	1,622	693	5,194	7,095	78,483	93,087
Ante-natal examinations .. .. .	1,693	855	....	1,516	4,774	8,838
Smallpox vaccinations .. .. .	7,937	381	....	....	....	8,318
Triple Antigen .. .. .	697	932	2,362	3,608	11	7,610
T.A.B. inoculations .. .. .	13,205	1,810	4,138	5,092	217	24,462
Family Planning Clinic .. .. .	....	....	151	141	....	292
	36,315	7,213	25,929	26,403	101,642	197,502

## APPENDIX XII

## NOTIFICATION OF INFECTIOUS DISEASES BY RACE FOR THE YEAR 1960

Disease	Europeans	Part-Europ.	Fijians	Indians	Others	Totals
1. Ankylostomiasis .. .. .	1	5	130	201	3	340
2. Anthrax .. .. .	....	....	....	....	....	....
3. Beriberi .. .. .	....	....	....	....	....	....
4. Cerebro-Spinal Meningitis .. .. .	1	1	6	3	....	11
5. Chicken Pox (Varicella) .. .. .	10	13	213	55	29	320
6. Diphtheria .. .. .	1	....	13	3	3	20
7. Dysentery .. .. .	....	....	....	9	....	9
8. Dysentery—						
(a) Amoebic .. .. .	....	....	4	9	1	14
(b) Bacillary .. .. .	....	....	25	53	2	80
(c) Unclassified .. .. .	2	....	23	84	....	109
9. Encephalitis Lethargica .. .. .	....	....	....	1	....	1
10. Erysipelas .. .. .	....	1	3	3	1	8
11. Infantile Diarrhoea .. .. .	13	33	1,732	1,354	163	3,295
12. Infective Hepatitis .. .. .	6	2	72	114	12	206
13. Influenza .. .. .	9	82	6,597	5,265	1,087	13,030
14. Leprosy .. .. .	1	3	21	11	3	39
15. Leptospirosis .. .. .	....	....	....	....	....	....
16. Malaria .. .. .	....	....	....	....	....	....
17. Measles (German) .. .. .	20	15	105	85	22	247
18. Measles (Morbilli) .. .. .	36	5	276	102	46	465
19. Mumps .. .. .	2	3	24	161	3	193
20. Poliomyelitis .. .. .	....	....	....	....	....	....
21. Puerperal Fever .. .. .	....	4	30	58	3	95
22. Scarlet Fever .. .. .	....	....	....	....	2	2
23. Tetanus .. .. .	....	2	25	13	1	41
24. Trachoma .. .. .	....	3	132	26	11	172
25. Tuberculosis—Pulmonary .. .. .	6	15	432	96	42	591
26. Tuberculosis—Other forms .. .. .	1	....	47	6	3	57
27. Typhoid Fever—						
(a) Enteric .. .. .	1	1	2	....	....	4
(b) Paratyphoid Fever .. .. .	....	....	1	....	....	1
28. Undulant Fever .. .. .	....	....	....	....	....	....
29. Venereal Diseases—						
(a) Climatic Bubo .. .. .	....	....	....	....	....	....
(b) Gonorrhoea .. .. .	9	18	223	116	14	380
(c) Gon. Ophthalmia including Neonatorum .. .. .	....	....	4	9	....	13
(d) Soft Chancre .. .. .	....	....	....	....	....	....
(e) Syphilis .. .. .	....	1	....	1	....	2
(f) Venereal Granuloma .. .. .	....	....	....	....	....	....
(g) Others .. .. .	....	....	....	....	....	....
30. Whooping Cough (Pertussis) .. .. .	....	7	272	222	8	509
31. Yaws .. .. .	....	....	21	3	2	26
Total .. .. .	118	214	10,421	8,053	1,459	20,265

## APPENDIX XIII

## VITAL STATISTICS

## (1) ESTIMATED POPULATION AT 31st DECEMBER, 1960

Race	Male	Female	Total	(1959)	Difference	Per cent increase	Population per sq. mile
Fijians .. .. .	85,090	82,383	167,473	162,483	4,990	3.0	23.79
Indians .. .. .	102,072	95,880	197,952	191,328	6,624	3.5	28.12
Europeans .. .. .	5,846	4,821	10,667	9,874	883	9.0	1.52
Part-Europeans .. .. .	4,413	4,283	8,696	8,464	232	2.7	1.24
Other Islanders .. .. .	3,257	2,918	6,175	5,841	334	5.7	.88
Rotumans .. .. .	2,533	2,476	5,009	4,862	147	3.0	*.71
Chinese .. .. .	2,992	1,951	4,943	4,809	134	2.7	*.7
Others .. .. .	40	63	103	75	28	3.7	*.01
Totals .. .. .	206,243	194,775	401,018	387,646	13,372	3.45	56.96

\* Density of less than 1 per square mile



## (2) BIRTHS RECORDED DURING YEARS 1957-1960

Race	1957	1958	1959	1960	1960 Population	Crude Birth- rate per mille of population 1960
Fijians .. .. .	5,933	5,587	5,909	6,164	167,473	37
Indians .. .. .	7,928	8,196	8,890	8,515	197,952	43
Europeans .. .. .	181	193	293	209	10,667	20
Part-Europeans .. .. .	240	278	229	266	8,696	31
Other Islanders .. .. .	225	217	234	227	6,175	37
Rotumans .. .. .	171	159	182	171	5,009	34
Chinese .. .. .	164	171	178	201	4,943	41
Others .. .. .	3	4	4	.....	103	.....
Totals .. .. .	14,845	14,805	15,919	15,753	401,018	39

## (3) DEATHS RECORDED DURING YEARS 1957-1960

Race	1957	1958	1959	1960	1960 Population	Crude death-rate per mille of population 1960
Fijians .. .. .	1,309	1,193	1,235	1,182	167,473	7.1
Indians .. .. .	1,114	1,204	1,474	1,270	197,952	6.4
Europeans .. .. .	45	44	41	35	10,667	3.3
Part-Europeans .. .. .	39	43	38	34	8,696	4
Other Islanders .. .. .	69	45	40	46	6,175	7.5
Rotumans .. .. .	46	37	28	24	5,009	4.8
Chinese .. .. .	27	18	26	31	4,943	6.3
Others .. .. .	2	....	1	....	103	....
Totals .. .. .	2,651	2,584	2,883	2,622	401,018	6.5

## (4) MARRIAGES, BIRTHS, DEATHS AND NATURAL INCREASE—1960

Race	Marriages	Births	Deaths	Net Increase	1959 Population	Increase per mille
Fijians .. .. .	1,059	6,164	1,182	4,982	162,483	31
Indians .. .. .	1,823	8,515	1,270	7,245	191,328	38
Europeans .. .. .	71	209	35	174	9,784	18
Part-Europeans .. .. .	63	266	34	232	8,464	27
Other Islanders .. .. .	67	227	46	181	5,841	31
Rotumans .. .. .	34	171	24	147	4,882	30
Chinese .. .. .	29	201	31	170	4,809	35
Others .. .. .	....	....	....	....	75	....
Totals .. .. .	3,146	15,753	2,622	13,131	387,646	34

## (5) INFANT AND CHILD MORTALITY

	Births	DEATHS UNDER 5 YEARS					Total	Infant Mortality Rate per mille
		Under 1	1-2	2-3	3-4	4-5		
1957—Fijians .. .. .	5,933	251	134	40	23	28	476	42
Indians .. .. .	7,928	282	35	13	16	7	353	36
1958—Fijians .. .. .	5,587	211	82	34	19	17	363	38
Indians .. .. .	8,196	345	19	14	6	9	393	42
1959—Fijians .. .. .	5,909	226	81	29	16	16	368	38
Indians .. .. .	8,890	415	39	18	14	11	497	47
1960—Fijians .. .. .	6,164	195	75	30	23	16	339	32
Indians .. .. .	8,515	344	39	8	17	13	321	40

## APPENDIX XIV

Return of Diseases and Deaths for the year 1960, at the Colonial War Memorial Hospital, Tamavua, Lautoka, Labasa and Levuka Hospitals.

NOTE.—This classification is based on the International Classification of Diseases, WHO 1955.

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
<b>I—INFECTIVE AND PARASITIC DISEASES</b>								
A 1	001-008	Tuberculosis of respiratory system .. .. .	21	634	117	70	842	25
A 2	010	Tuberculosis of meninges and central nervous system ..	3	17	2	2	24	12
A 3	011	Tuberculosis of intestines, peritoneum and mesenteric glands ..	..	4	1	..	5	..
A 4	012, 013	Tuberculosis of bones and joints .. .. .	1	21	2	..	24	3
A 5	014-019	Tuberculosis, all other forms .. .. .	14	12	4	3	33	9
A 6	020	Congenital syphilis .. .. .	..	..	..	..	..	..
A 7	021	Early syphilis .. .. .	..	1	..	..	1	..
A 8	024	Tabes dorsalis .. .. .	..	..	..	..	..	..
A 9	025	General paralysis of insane .. .. .	..	..	..	..	..	..
A 10	022, 023 026-029	All other syphilis .. .. .	..	..	2	..	2	..
A 11	030-035	Gonococcal infections .. .. .	2	10	10	..	22	..
A 12	040	Typhoid fever .. .. .	1	3	1	..	5	..
A 13	041, 042	Paratyphoid fever and other Salmonella infections ..	1	2	..	..	3	..
A 14	043	Cholera .. .. .	..	..	..	..	..	..
A 15	044	Brucellosis (undulant fever) .. .. .	..	..	1	..	1	..
A 16	(a) 045 (b) 046 (c) 047, 048	Bacillary dysentery .. .. . Amoebiasis .. .. . Other unspecified forms of dysentery .. .. .	..	7 6 2	18 12	.. 3	25 24	.. 4
A 17	050	Scarlet fever .. .. .	..	..	1	..	1	1
A 18	051	Streptococcal sore throat .. .. .	..	..	1	..	1	..
A 19	052	Erysipelas .. .. .	..	..	..	..	..	..
A 20	053	Septicaemia and pyaemia .. .. .	1	1	..	..	2	1
A 21	055	Diphtheria .. .. .	..	..	8	..	8	1
A 22	056	Whooping cough .. .. .	..	1	2	..	3	..
A 23	057	Meningococcal infections .. .. .	..	4	1	1	6	1
A 24	058	Plague .. .. .	..	..	..	..	..	..
A 25	060	Leprosy .. .. .	..	2	8	..	10	..
A 26	061	Tetanus .. .. .	..	12	19	2	33	19
A 27	062	Anthrax .. .. .	..	..	..	..	..	..
A 28	080	Acute poliomyelitis .. .. .	..	..	..	..	..	..
A 29	082	Acute infectious encephalitis .. .. .	1	3	3	..	7	1
A 30	081, 083	Late effects of acute poliomyelitis and acute infectious encephalitis .. .. .	..	5	7	..	12	..
A 31	084	Smallpox .. .. .	..	..	..	..	..	..
A 32	085	Measles .. .. .	..	1	4	..	5	..
A 33	091	Yellow fever .. .. .	..	..	..	..	..	..
A 34	092	Infectious hepatitis .. .. .	2	20	28	1	51	4
A 35	094	Rabies .. .. .	..	..	..	..	..	..
A 36	(a) 100 (b) 101 (c) 104 (d) 105 (e) 102, 103 106-108	Louse-borne epidemic typhus .. .. . Flea-borne endemic typhus (murine) .. .. . Tick-borne epidemic typhus .. .. . Mite-borne typhus .. .. . Other and unspecified typhus .. .. .	..	..	..	..	..	..
A 37	(a) 110 (b) 111 (c) 112 (d) 115 (e) 113, 114 116, 117	Vivax malaria (benign, tertian) .. .. . Malariae malaria (quartan) .. .. . Falciparum malaria (malignant tertian) .. .. . Blackwater fever .. .. . Other and unspecified forms of malaria .. .. .	..	..	..	..	..	..
A 38	(a) 123-0 (b) 123-1 (c) 123-2 (d) 123-3	Schistosomiasis vesical ( <i>S. haematobium</i> ) .. .. . Schistosomiasis intestinal ( <i>S. mansoni</i> ) .. .. . Schistosomiasis pulmonary ( <i>S. japonicum</i> ) .. .. . Other and unspecified schistosomiasis .. .. .	..	..	..	..	..	..
A 39	125	Hydatid disease .. .. .	..	..	1	..	1	..
A 40	(a) 127 (b) .. (c) .. (d) ..	Onchocerciasis .. .. . Loiasis .. .. . Filariasis ( <i>hancrofti</i> ) .. .. . Other filariasis .. .. .	..	..	..	..	..	..
A 41	129	Ankylostomiasis .. .. .	3	7	23	1	34	3
A 42	(a) 126 (b) 130-0 (c) 130-3 (d) 124, 128 130-1, 130-2	Tapeworm (infestation) and other cestode infestations .. .. . Ascariasis .. .. . Guinea worm ( <i>dracunculosis</i> ) .. .. . Other diseases due to helminths .. .. . Lymphogranuloma venereum .. .. . Granuloma inguinale, venereal .. .. . Other and unspecified venereal diseases .. .. . Food poisoning infection and intoxication .. .. . Relapsing fever .. .. .	..	..	1 6	..	7	1
A 43	(a) 037 (b) 038 (c) 039 (d) 049 (e) 071	Lymphogranuloma venereum .. .. . Granuloma inguinale, venereal .. .. . Other and unspecified venereal diseases .. .. . Food poisoning infection and intoxication .. .. . Relapsing fever .. .. .	2	8	8	1	19	..

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Others	Totals	Deaths
(f)	072	Leptospirosis icterohaemorrhagica (Weil's disease) .. ..	..	..	..	..	..	..
(g)	073	Yaws .. .. .	..	3	..	1	4	..
(h)	087	Chickenpox .. .. .	1	4	1	..	6	..
(i)	090	Dengue .. .. .	1	12	1	3	17	..
(j)	095	Trachoma .. .. .	..	..	..	..	..	..
(k)	096-7	Sandfly fever .. .. .	..	..	..	..	..	..
(l)	120	Leishmaniasis .. .. .	..	..	..	..	..	..
(m)	121 (a)	Trypanosomiasis gambiensis .. .. .	..	..	..	..	..	..
	(b)	Trypanosomiasis rhodesiensiis .. .. .	..	..	..	..	..	..
	(c)	Other and unspecified Trypanosomiasis .. .. .	..	..	..	..	..	..
(n)	131	Dermatophytosis .. .. .	..	..	..	..	..	..
(o)	135	Scabies .. .. .	..	2	3	..	5	..
(p)	036, 054, 059, 063, 064, 070, 074, 086, 088, 089, 093, 096-1-096-6, 096-8, 096-9, 122, 132-134, 136-138	All other diseases classified as infective and parasitic .. ..	1	2	3	1	7	..
II—NEOPLASMS								
A 44	140-148	Malignant neoplasm of buccal cavity and pharynx .. ..	..	1	5	..	6	..
A 45	150	Malignant neoplasms of oesophagus .. .. .	..	..	1	..	1	..
A 46	151	Malignant neoplasm of stomach .. .. .	1	12	11	1	25	5
A 47	152, 153	Malignant neoplasm of intestine, except rectum .. ..	2	5	..	..	7	..
A 48	154	Malignant neoplasm of rectum .. .. .	1	2	5	..	8	..
A 49	161	Malignant neoplasm of larynx .. .. .	..	1	2	..	3	..
A 50	162, 163	Malignant neoplasm of trachea, and of bronchus and lung not specified as secondary .. .. .	2	2	6	..	10	4
A 51	170	Malignant neoplasm of breast .. .. .	2	14	5	..	21	6
A 52	171	Malignant neoplasm of cervix uteri .. .. .	1	11	16	..	28	2
A 53	172-174	Malignant neoplasm of other and unspecified parts of uterus .. ..	1	6	2	..	9	1
A 54	177	Malignant neoplasm of prostate .. .. .	..	1	2	..	3	3
A 55	190, 191	Malignant neoplasm of skin .. .. .	5	5	1	..	11	1
A 56	196, 197	Malignant neoplasm of bone and connective tissue .. ..	3	9	6	..	18	..
A 57	155, 160, 164, 165, 175, 176, 178-181, 192-195, 198, 199	Other and unspecified sites .. .. .	..	30	7	13	50	10
A 58	204	Leukaemia and aleukaemia .. .. .	1	6	3	..	10	1
A 59	200-203, 205	Lymphosarcoma and other neoplasms of lymphatic and haematopoietic system .. .. .	2	3	5	..	10	2
A 60	210-239	Benign neoplasms and neoplasms of unspecified nature .. ..	25	34	69	12	140	3
III—ALLERGIC, ENDOCRINE SYSTEM, METABOLIC AND NUTRITIONAL DISEASES								
and								
IV—DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS								
A 61	250, 251	Nontoxic goitre .. .. .	3	3	24	..	30	..
A 62	252	Thyrototoxicosis with or without goitre .. .. .	..	2	10	1	13	..
A 63	260	Diabetes mellitus .. .. .	7	28	203	4	242	11
A 64 (a)	280	Beriberi .. .. .	..	..	..	..	..	..
(b)	281	Pellagra .. .. .	..	..	2	..	2	..
(c)	282	Scurvy .. .. .	..	..	..	..	..	..
(d)	283-286	Other deficiency states .. .. .	1	10	6	..	17	1
A 65 (a)	290	Pernicious and other hyperchromic anaemias .. .. .	1	3	22	..	26	1
(b)	291	Iron deficiency anaemias (hypochromic) .. .. .	2	15	123	..	140	1
(c)	292, 293	Other specified and unspecified anaemias .. .. .	..	3	21	2	26	7
A 66 (a)	241	Asthma .. .. .	4	18	80	1	103	..
(b)	240, 242-245, 253, 254, 270-277, 287-289, 294-299	All other allergic disorders endocrine, metabolic and blood diseases .. .. .	4	39	37	3	53	6
V—MENTAL, PSYCHONEUROTIC AND PERSONALITY DISORDERS								
A 67	300-309	Psychoses .. .. .	..	12	6	..	18	..
A 68	310-324, 326	Psychoneuroses and disorders of personality .. .. .	8	8	22	1	39	..
A 69	325	Mental deficiency .. .. .	2	8	7	2	19	1

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
<b>VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS</b>								
A 70	330-334	Vascular lesions affecting central nervous system .. ..	10	12	29	2	53	15
A 71	340	Nonmeningococcal meningitis .. ..	3	11	18	6	38	10
A 72	345	Multiple sclerosis .. ..	..	1	1	..	2	..
A 73	353	Epilepsy .. ..	1	15	20	21	57	..
A 74	370-379	Inflammatory diseases of eye .. ..	4	32	70	1	107	..
A 75	385	Cataract .. ..	12	27	77	3	119	1
A 76	387	Glaucoma .. ..	..	4	8	11	23	1
A 77 (a)	390	Otitis externa .. ..	3	7	5	..	15	..
(b)	391-393	Otitis media and mastoiditis .. ..	2	8	20	1	31	1
(c)	394	Other inflammatory diseases of ear .. ..	..	..	2	..	2	..
A 78 (a)	380-384, 386, 388, 389	} All other diseases and conditions of eye .. ..	4	28	30	1	63	..
(b)	341, 344, 350-352, 360-369, 395-398	} All other diseases of the nervous system and sense organs .. ..	6	12	23	..	41	5
<b>VII—DISEASES OF THE CIRCULATORY SYSTEM</b>								
A 79	400-402	Rheumatic fever .. ..	1	11	101	2	115	2
A 80	410-416	Chronic rheumatic heart disease .. ..	3	48	77	1	129	9
A 81	420-422	Arteriosclerotic and degenerative heart disease .. ..	5	11	106	5	127	34
A 82	430-434	Other diseases of heart .. ..	9	20	68	7	104	23
A 83	440-443	Hypertension with heart disease .. ..	14	13	41	2	70	5
A 84	444-447	Hypertension without mention of heart .. ..	8	16	62	1	87	8
A 85	450-456	Disease of arteries .. ..	3	3	14	..	20	7
A 86	460-468	Other diseases of circulatory system .. ..	13	25	59	2	99	6
<b>VIII—DISEASES OF THE RESPIRATORY SYSTEM</b>								
A 87	470-475	Acute upper respiratory infections .. ..	12	19	32	3	66	..
A 88	480-483	Influenza .. ..	2	30	41	4	76	1
A 89	490	Lobar pneumonia .. ..	12	127	86	6	231	11
A 90	491	Bronchopneumonia .. ..	23	243	216	18	500	56
A 91	492, 493	Primary atypical, other and unspecified pneumonia .. ..	2	12	7	1	22	1
A 92	500	Acute bronchitis .. ..	4	31	27	2	64	3
A 93	501, 502	Bronchitis, chronic and unqualified .. ..	3	14	17	..	34	5
A 94	510	Hypertrophy of tonsils and adenoids .. ..	20	7	134	4	165	..
A 95	518, 521	Empyema and abscess of lung .. ..	..	7	3	1	11	1
A 96	519	Pleurisy .. ..	1	6	13	..	20	..
A 97 (a)	523	Pneumoconiosis .. ..	..	4	5	..	9	..
(b)	511-517, 520-522, 524-527	} All other respiratory diseases .. ..	5	34	60	6	105	6
<b>IX—DISEASES OF THE DIGESTIVE SYSTEM</b>								
A 98 (a)	530	Dental Caries .. ..	2	1	5	..	8	..
(b)	531-535	All other diseases of teeth and supporting structures .. ..	5	13	16	1	35	..
A 99	540	Ulcer of stomach .. ..	4	23	38	3	68	1
A 100	541	Ulcer of duodenum .. ..	3	28	51	5	87	1
A 101	543	Gastritis and duodenitis .. ..	8	22	74	12	116	1
A 102	550-553	Appendicitis .. ..	40	54	185	6	285	4
A 103	560, 561, 570	Intestinal obstruction and hernia .. ..	26	87	122	13	248	5
A 104 (a)	571-0	Gastro-enteritis and colitis between 4 weeks and 2 years .. ..	7	57	90	1	155	22
(b)	571-1	Gastro-enteritis and colitis, ages 2 years and over .. ..	9	37	50	2	98	4
(c)	572	Chronic enteritis and ulcerative colitis .. ..	1	5	8	..	14	..
A 105	581	Cirrhosis of liver .. ..	2	17	22	1	42	14
A 106	584, 585	Cholelithiasis and cholecystitis .. ..	9	8	45	1	63	..
A 107	536-539, 542, 544, 545, 573-580, 582, 583, 586, 587	} Other diseases of digestive system .. ..	30	34	106	9	179	14

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
<b>X—DISEASES OF THE GENITO-URINARY SYSTEM</b>								
A 108	590	Acute nephritis .. .. .	1	5	27	3	36	..
A 109	591-594	Chronic, other and unspecified nephritis .. .. .	4	24	25	1	54	4
A 110	600	Infections of kidney .. .. .	9	12	39	2	62	1
A 111	602, 604	Calculi of urinary system .. .. .	13	3	43	5	64	..
A 112	610	Hyperplasia of prostate .. .. .	5	7	20	..	32	1
A 113	620, 621	Diseases of breast .. .. .	10	2	6	2	20	..
A 114 (a)	613	Hydrocele .. .. .	5	39	33	4	81	..
(b)	634	Disorders of menstruation .. .. .	27	33	97	3	160	..
(c)	601, 603 605-609 611, 612 614-617 622-633 635-637	} All other diseases of the genito-urinary system .. .. .	58	130	258	11	457	4
<b>XI—DELIVERIES AND COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM</b>								
A 115	640-641, 681, 682, 684	Sepsis of pregnancy, childbirth and the puerperium .. .. .	..	33	65	7	105	..
A 116	642, 652, 685, 686	Toxaemias of pregnancy and the puerperium .. .. .	4	27	117	4	152	..
A 117	643, 644 670-672	Haemorrhage of pregnancy and childbirth .. .. .	10	87	126	19	242	2
A 118	650	Abortion without mention of sepsis or toxæmia .. .. .	45	121	255	12	433	..
A 119	651	Abortion with sepsis .. .. .	1	10	21	4	36	..
A 120 (a)	645-649 673-680 683, 687-689	} Other complications of pregnancy, childbirth and the puerperium .. .. .	63	484	1,510	106	2,163	7
(b)	660	Delivery without complications .. .. .	175	632	1,432	218	2,457	1
<b>XII—DISEASES OF THE SKIN AND CELLULAR TISSUE</b>								
and								
<b>XIII—DISEASES OF THE BONES AND ORGANS OF MOVEMENT</b>								
A 121	690-698	Infections of skin and subcutaneous tissue .. .. .	44	214	231	14	503	4
A 122	720-725	Arthritis and spondylitis .. .. .	10	36	38	2	86	1
A 123	726, 727	Muscular rheumatism and rheumatism unspecified .. .. .	..	1	13	..	14	..
A 124	730	Osteomyelitis and periostitis .. .. .	2	35	27	2	66	1
A 125	737, 745-749	Ankylosis and acquired musculo-skeletal deformities .. .. .	..	4	6	..	10	3
A 126 (a)	715	Chronic Ulcer of Skin (including tropical ulcer) .. .. .	2	7	10	1	20	..
(b)	700-714, 716	All other diseases of skin .. .. .	4	5	5	2	16	..
(c)	731-736, 738-744	} All other diseases of musculo-skeletal system .. .. .	14	33	26	3	76	..
<b>XIV—CONGENITAL MALFORMATIONS</b>								
A 127	751	Spina bifida and meningocele .. .. .	2	2	5	..	9	1
A 128	754	Congenital malformations of circulatory system .. .. .	..	1	9	..	10	2
A 129	750, 752, 753, 755-759	} All other congenital malformations .. .. .	8	23	43	2	76	4
<b>XV—CERTAIN DISEASES OF EARLY INFANCY</b>								
A 130	760, 761	Birth injuries .. .. .	1	..	7	..	8	2
A 131	762	Postnatal asphyxia and atelectasis .. .. .	1	1	3	..	5	3
A 132 (a)	764	Diarrhoea of newborn (under 4 weeks) .. .. .	..	..	8	..	8	5
(b)	765	Ophthalmia neonatorum .. .. .	..	..	2	..	2	..
(c)	763, 766-768	Other infections of newborn .. .. .	1	2	3	..	6	..
A 133	770	Haemolytic disease of newborn .. .. .	1	..	1	..	2	..
A 134	769, 771, 772	All other defined diseases of early infancy .. .. .	..	3	3	..	6	2
A 135	773, 776	Ill-defined diseases peculiar to early infancy, and immaturity unqualified .. .. .	3	9	51	..	63	26

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Total	Deaths
<b>XVI—SYMPTOMS, SENILITY AND ILL-DEFINED CONDITIONS</b>								
A 136	794	Senility without mention of psychosis . . . . .	..	1	8	..	9	1
A 137 (a)	788-8	Pyrexia of unknown origin . . . . .	3	22	17	1	43	..
(b)	793	Observation, without need for further medical care . . . . .	178	473	1,309	38	1,998	21
(c)	780-787	} All other ill-defined causes of morbidity . . . . .	8	11	56	2	77	1
	788-1-788-7 788-9, 789-792, 795							

**" E " CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (EXTERNAL CAUSE)**

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AE 138	E810-E835	Motor vehicle accidents . . . . .	11	35	82	3	131	9
AE 139	E800-E802 E840-E866	} Other transport accidents . . . . .	2	5	11	..	18	..
AE 140	E870-E895							
AE 141	E900-E904	Accidental poisoning . . . . .	4	10	53	3	70	1
AE 142	E912	Accidental falls . . . . .	37	97	186	14	334	7
AE 143	E916	Accident caused by machinery . . . . .	1	20	43	2	66	..
AE 144	E917, E918	Accident caused by fire and explosion of combustible material . . . . .	2	18	10	2	32	1
AE 145	E919	Accident caused by hot substance, corrosive liquid, steam and radiation . . . . .	2	8	29	2	41	3
AE 146	E929	Accident caused by firearm . . . . .	1	3	5	..	9	..
AE 147 (a)	E920	Accidental drowning and submersion . . . . .	..	3	2	..	5	..
(b)	E923	Foreign body entering eye and adnexa . . . . .	1	8	27	..	36	..
(c)	E927	Foreign body entering other orifice . . . . .	..	2	6	..	8	..
(d)	E928	Accidents caused by bites and stings of venomous animals and insects . . . . .	..	1	2	..	3	..
(e)	E910, E911 E913-E915 E921-E922 E924-E926 E930-E965	} All other accidental causes . . . . .	9	81	48	..	138	1
AE 148	E970-E979							
AE 149	E980-E985	Suicide and self-inflicted injury . . . . .	5	33	40	1	79	3
AE 150	E990-E999	Homicide and injury purposely inflicted by other persons (not in war) . . . . .	9	40	63	1	113	2
		Injury resulting from operations of war . . . . .	..	..	..	1	1	..

**" N " CODE—ALTERNATIVE CLASSIFICATION OF ACCIDENTS, POISONINGS AND VIOLENCE (NATURE OF INJURY)**

Intermediate List Number	Detailed List Numbers	Cause Groups	Euro.	Fijian	Indian	Other	Totals	Deaths
AN 138	N800-N804	Fracture of skull . . . . .	11	37	34	..	82	4
AN 139	N805-N809	Fracture of spine and trunk . . . . .	4	15	14	3	36	2
AN 140	N810-N829	Fracture of limbs . . . . .	30	98	203	4	335	5
AN 141	N830-N839	Dislocation without fracture . . . . .	1	11	13	1	26	..
AN 142	N840-N848	Sprains and strains of joints and adjacent muscle . . . . .	1	8	16	2	27	..
AN 143	N850-N856	Head injury (excluding fracture) . . . . .	9	34	42	6	91	3
AN 144	N860-N869	Internal injury of chest, abdomen and pelvis . . . . .	2	2	14	..	18	2
AN 145	N870-N908	Laceration and open wounds . . . . .	12	86	122	4	224	2
AN 146	N910-N929	Superficial injury, contusion and crushing with intact skin surface . . . . .	2	19	17	1	39	..
AN 147	N930-N936	Effects of foreign body entering through orifice . . . . .	1	6	18	..	25	..
AN 148	N940-N949	Burns . . . . .	5	23	48	3	79	4
AN 149	N960-N979	Effects of poisons . . . . .	3	11	54	4	72	3
AN 150	N950-N959 N980-N999	} All other and unspecified effects of external causes . . . . .	3	16	24	1	44	3

## APPENDIX XV

URBAN/TOWNSHIP/RURAL SANITARY DISTRICTS OF FIJI  
REPORT OF HEALTH INSPECTORS FOR THE YEAR 1960

## 1—SUMMARY OF INSPECTIONS

<i>Type of Premises, etc.</i>	<i>Inspections</i>	<i>Re-Inspections</i>	<i>Total</i>
House-to-house Inspection of District .. .. .	48,289	21,690	69,979
Investigation of Complaints, Nuisances, etc. .. .. .	846	472	1,318
New Buildings Sites—before approval .. .. .	1,235	133	1,368
New Buildings Works in Progress .. .. .	3,477	1,431	4,908
Investigation of Infectious Disease and Disinfection .. .. .	3,140	54	3,194
Shipping Inspections .. .. .	118	....	118
Aircraft Inspections .. .. .	1,041	....	1,041
Houses-let-as-Lodgings and Lodging Houses .. .. .	631	522	1,153
Factories and Workshops .. .. .	645	414	1,059
Cemeteries .. .. .	95	35	130
Schools .. .. .	483	235	718
Checking Sanitary Services (A/Cs, etc.) .. .. .	1,889	189	2,078
Laundries .. .. .	534	279	813
Hairdressers, Chiropodists, etc. .. .. .	1,337	720	2,057
Foodshops, Foodstores, Markets, etc. . . . .	5,206	2,665	7,871
Eating Houses and Ice Cream Premises .. .. .	1,836	1,315	3,151
Aerated Water and Ice Factories .. .. .	193	138	331
Kava Saloons .. .. .	302	220	522
Bakehouses .. .. .	738	532	1,270
Slaughterhouses .. .. .	62	37	99
Butchers Shops .. .. .	322	230	552
Food Vehicles .. .. .	501	408	909
Public Conveniences .. .. .	122	18	140
Hotels and Liquor Premises .. .. .	32	14	46
Miscellaneous .. .. .	584	90	674
Total .. .. .	73,658	31,841	105,499

## 2—WRITTEN NOTICES, ETC., ISSUED

<i>Type of Notice etc.</i>	<i>Number</i>
Intimation notices served .. .. .	6,247
Statutory notices served .. .. .	243
Buildings Surveyed for Closure or Demolition .. .. .	138
Closing Orders served .. .. .	44
Intention to Demolish served .. .. .	2
Demolition Orders served .. .. .	7
Buildings Demolished after service of Orders—	
(a) By Owners .. .. .	49
(b) By Local Authority .. .. .	....

## 3—BUILDING APPLICATIONS DEALT WITH

<i>Type of Application</i>	<i>Number</i>	<i>Value</i>
New Buildings .. .. .	3,126	£1,894,259
Alterations and Repairs .. .. .	366	151,015
Septic Tank Installations .. .. .	95	11,393
Total .. .. .	3,587	£2,056,667
Buildings completed during the year .. .. .	1,159	
Applications outstanding in register (work not completed) at end of year		
(a) New Buildings .. .. .	5,684	
(b) Alterations and Repairs .. .. .	1,926	
(c) Septic Tanks .. .. .	804	
Applications withdrawn, rejected or lapsed	121	

## 4—SUMMARY OF SANITARY IMPROVEMENTS, ETC. (ALL TYPES OF PREMISES)

<i>Items</i>	<i>Ordered</i>	<i>Completed</i>
Repairing of Buildings .. .. .	512	179
Improvements to Lighting and Ventilation of Buildings .. .. .	305	110
Removal of Unauthorized Erections .. .. .	448	123
Abatement of Overcrowding .. .. .	105	34
New Privies (all types) .. .. .	1,793	1,052
Repairing, Cleansing or Flyproofing of Privies .. .. .	4,710	2,845
Filling in of Insanitary Privies .. .. .	1,167	795
New Bathrooms or Washing Places .. .. .	282	161
Repairing or Cleansing of Bathrooms or Washing Places .. .. .	754	560
New Kitchens .. .. .	339	167
Repairing or Cleansing of Kitchens .. .. .	834	518
Provision of New Drains .. .. .	972	521
Repairing or Cleansing of existing Drains .. .. .	3,509	2,171
New Wells .. .. .	162	107
Repairing or Improvement of Wells .. .. .	764	414
New Water Tanks .. .. .	366	275
Repairing, Screening or Cleansing of Water Tanks .. .. .	1,916	1,094
Removal of Accumulations of Refuse, etc. .. .. .	6,757	4,858
Clearing of Overgrowth or Long Grass .. .. .	6,687	4,453
Provision of Garbage Tins .. .. .	1,687	1,100
Abatement of Nuisances from Animals or Poultry .. .. .	2,151	1,134
Abatement of Mosquito Breeding .. .. .	3,487	2,707
Cleansing of Food Premises .. .. .	1,906	1,427
Structural Improvements to Food Premises .. .. .	366	137
Cleansing of Food Vehicles .. .. .	284	260
Improvements to Food Vehicles .. .. .	132	127
Cleansing or Improvement of Hairdressers Premises .. .. .	501	199
Cleansing or Improvement of Laundries .. .. .	164	133
Cleansing or Improvement of Schools .. .. .	81	49
Cleansing or Improvement of Shipping .. .. .	4	....
Impounding of Straying Cattle .. .. .	117	117
Miscellaneous .. .. .	1,370	799
Septic Tanks Emptied .. .. .	....	135
Wells Chlorinated .. .. .	....	72
Total .. .. .	44,632	28,833

## 5—MOSQUITO CONTROL

Premises Inspected for Mosquito Larvae .. .. .	67,605
Premises at which Larvae were found .. .. .	3,487
Larval Index .. .. .	5.16 per cent

## 6—DISINFECTION, DISINFESTATION AND FUMIGATION

<i>Type of Premises or Vessel</i>	<i>Method</i>	<i>Number</i>
Overseas Vessels—Anti-malarial Inspections .. .. .	.. .. .	120
Overseas Vessels .. .. .	Aerosol Bombs .. .. .	44
Overseas Vessels .. .. .	Cyanide .. .. .	3
Local Vessels .. .. .	Cyanide .. .. .	46
Local Vessels .. .. .	Dieldrin .. .. .	27
Aircraft .. .. .	Aerosol Dispensers .. .. .	308
Clothing .. .. .	Formalin .. .. .	122 bags
Premises and Dwellings .. .. .	Dieldrin, Formalin and D.D.T. .. .. .	314
International Deratization Certificates Issued .. .. .	.. .. .	3
International Deratization Exemption Certificates Issued .. .. .	.. .. .	8
Local Deratization Exemption Certificates Issued .. .. .	.. .. .	16

## 7—ANTI-RAT MEASURES

	<i>Rattus Rattus</i>	<i>Rattus Norvegicus</i>	<i>Total</i>
Poison baits set .. .. .	....	....	5,034
Traps set .. .. .	....	....	11,271
Rats destroyed by poisoning .. .. .	78	297	375
Rats destroyed by trapping .. .. .	113	523	636
<i>Rats destroyed by fumigation—</i>			
(a) Overseas shipping .. .. .	....	....	....
(b) Local Shipping .. .. .	92	2	94
(c) Aircraft .. .. .	....	....	....
Rats submitted for laboratory examination .. .. .	8	24	32
Rats found infected .. .. .	1	1	2



## 8—SUPERVISION OF LABOUR GANGS, ETC.

Number of men employed, Clearing and Draining Work done, Loads of Refuse removed, etc.—

Number of men employed	.. .. .	212
Area of land cleared	.. .. .	100 areas
Length of drains cleared	.. .. .	30 miles 10 chs.
Loads of refuse and garbage removed	.. .. .	23,874

## 9—FOOD INSPECTION AND SAMPLING

Unsound foodstuffs condemned and destroyed—99,715 lb.

## (a) Food and Water Samples—

	Type	Number
Fresh water .. .. .	Bacteriological .. .. .	444
Sea Water Baths .. .. .	Bacteriological .. .. .	52
Ice Cream .. .. .	Bacteriological .. .. .	4
Milk—genuine .. .. .	Chemical .. .. .	86
Milk—Non-genuine .. .. .	Chemical .. .. .	15
Miscellaneous .. .. .	Chemical .. .. .	42

## (b) Meat Inspection—

	Carcases inspected—	Number
Cattle .. .. .	.. .. .	124
Pigs .. .. .	.. .. .	25
Goats .. .. .	.. .. .	2

## Carcases, Organs and Parts condemned—

Carcases .. .. .	.. .. .	1
Livers .. .. .	.. .. .	11
Heads .. .. .	.. .. .	3
Hearts .. .. .	.. .. .	3
Kidneys .. .. .	.. .. .	1

## 10—LEGAL PROCEEDINGS

Defendants, Offences and Results of Action—

	Public Health	Pure Food
Cases Taken .. .. .	41	Cases Taken .. .. . 29
Conviction Obtained .. .. .	41	Conviction Obtained .. .. . 28
Penalties with costs	£318 10s. 0d.	Penalties with costs .. .. . £165

## 11—REMARKS AND DETAILS OF ANY OTHER SPECIAL WORKS CARRIED OUT DURING THE MONTH UNDER REVIEW

## (i) Sanitation Campaign—

Squatting slabs sold	.. .. .	618
Latrine plugs sold	.. .. .	641
Pedestal sets sold	.. .. .	190
Pedestal seats sold	.. .. .	110
Pedestal riser sold	.. .. .	19
Revenue from above sales	.. .. .	£653 0s. 6d.

## (ii) Drainage—

5 ft. inverts sold	.. .. .	722
6 ft. inverts sold	.. .. .	1,052
Concrete survey pegs sold	.. .. .	75
Revenue from above sales	.. .. .	£3,047 11s. 0d.

## 12—SEA PORT AND AIRPORT HEALTH QUARANTINE

The following are comparative figures in respect of shipping dealt with over the last five years :—

	1956	1957	1958	1959	1960
Ships given Pratique .. .. .	240	281	317	253	319
Landing Passengers .. .. .	6,972	6,081	3,461	33,123	3,329
Aircraft given Pratique .. .. .	1,376	1,763	1,873	1,604	1,540
Landing Passengers .. .. .	13,660	13,844	16,861	45,172	14,871
Local vessels fumigated .. .. .	80	85	74	64	46
Overseas vessels fumigated .. .. .	3	2	71	6	3
Aircraft treated with Aerosols .. .. .	576	539	646	663	632
International Deratization Certificates .. .. .	4	2	1	6	3
International Deratization Exemption Certificates .. .. .	....	2	5	28	8

## APPENDIX XVI

## SUVA GAOL

- During 1960, Dr. T. A. U. Clunie was visiting Medical Officer to the Suva Gaol.
2. Regular visits were made by the Medical Officer when he saw cases referred by the Assistant Medical Officer and patients in the Infirmary ward.
  3. The prison buildings, bakery and warders' compound were inspected regularly.
  4. All new admissions to the Gaol were examined. The resident Assistant Medical Officer gave routine daily medical attention to staff and prisoners and there was a total of 6,971 attendances at the dispensary.
  5. Twenty-four cases of pulmonary tuberculosis were seen—these included old cases. Two were admitted to Tamavua Hospital. No active cases were found in the contacts.
  6. In addition to 119 cases referred for dental treatment, 17 cases were sent to the Colonial War Memorial Hospital for further advice and treatment.
  7. There were 6 psychoses.
  8. During the year there were 2 judicial hangings and 9 corporal punishments.

## APPENDIX XVII

## METEOROLOGICAL REPORTS

The following Meteorological Reports for the year 1960 have been supplied by the Meteorological Office :—

<i>Laucala Bay</i>		<i>Suva</i>	
<i>Rainfall—</i>		<i>Rainfall—</i>	
Total .. .. .	123.19"	Total .. .. .	125.69"
Normal for 19 years ..	118.23"	Normal for 73/74 years ..	124.35"
Departure from normal ..	+4.96"	Departure from normal ..	+1.34"
Wet Days (0.01" or more) .	220	Wet Days (0.01" or more) .	206
Wettest Day on Nov. 19th	5.60"	Wettest Day on Nov. 19th	7.55"
<i>Temperatures—</i>		<i>Temperatures—</i>	
Mean Maximum .. .. .	82.9°F.	Mean Maximum .. .. .	83.2°F.
Highest Recorded on Feb. 2nd .. .. .	90.6°F.	Highest Recorded on several days .. .. .	90.4°F.
Mean Minimum .. .. .	71.8°F.	Mean Minimum .. .. .	72.1°F.
Lowest Minimum on Aug. 5th .. .. .	61.8°F.	Lowest Minimum on June 17th .. .. .	62.2°F.
Mean Temperature $\frac{1}{2}$ (Max + Min) .. .. .	77.3°F.	Mean Temperature $\frac{1}{2}$ (Max + Min) .. .. .	77.6°F.
Departure from Normal ..	+0.2°F.	Departure from Normal ..	+0.4°F.
Mean Temperature at 9 a.m.	78.9°F.	Mean Temperature at 9 a.m.	79.0°F.
<i>Humidity—</i>		<i>Humidity—</i>	
Mean Humidity at 9 a.m. . .	80%	Mean Humidity at 9 a.m.	77%
<i>Bright Sunshine—</i>			
Total Hours .. .. .	1786.8 hrs.		
Mean Daily .. .. .	4.88 hrs.		

## NOTES

*General*—Cloudy with near average rainfall and temperatures.

*Temperatures*—The mean was 0.2°F. above the average and extremes ranged from 90.6°F. on February 16th to 61.8°F. on August 5th. All months except July and December were above or just on the average. December 4th with a minimum temperature of 66.0°F. was the lowest December minimum at Laucala Bay since records began.

*Rainfall*—Totals were close to the averages. November was the wettest month and August the driest. Although June and July had totals considerably above the average, there were prolonged dry spells as the bulk of the rain fell in a few days.

*Winds*—The prevailing wind direction was S.E. with 36 per cent frequency and together with Easterlies, accounted for 74 per cent of all directions. The mean speed was 7.7 knots and the maximum gust 44 knots on June 15th and July 29th.

## FIJIAN SPELLING

Two systems of spelling Fijian names and words are in use in the Colony. The "Fijian" system was devised during the period 1835-37 by the Missionaries who first reduced the Fijian language to writing. They aimed at representing the various Fijian sounds by single letters and the system that resulted has been used ever since by the Fijian people and is in general use within the Colony. The letters concerned are "b", "c", "d", "g", and "q" and the following examples indicate the manner in which they are pronounced.

- (i) B is pronounced "MB" as in number, e.g. LABASA = LAMBASA.
- (ii) C is pronounced "TH" as in that, e.g. CAUTATA = THAUTATA.
- (iii) D is pronounced "ND" as in end, e.g. NADI = NANDI.
- (iv) G is pronounced "NG" as in sing, e.g. NASIGATOKA = NASINGATOKA.
- (v) Q is pronounced "NGG" as in finger, e.g. YAQARA = YANGGARA.

In practically all words in Fijian, the accent is on the penultimate syllable.

2. The "phonetic" system is a more recent attempt to render Fijian words in English spelling. It is used in maps and in documents designed primarily for overseas reading, e.g. MBAU (BAU), THAKOMBAU (CAKOBAN), NANDI (NADI), NANDRONGA (NADROGA), MBENGA (BEQA).



